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NASA - JPL
SSIC No. 9661

REMEDIAL PROJECT MANAGERS' MEETING

NASA/JET PROPULSION LABORATORY

7 December 2000

ATTENDEES:

Charles L. Buril, JPL

Alex Carlos, RWQCB-LA

Phebe Davol, Techlaw

Kimberly Gates,

Richard Gebert, DTSC

Jeffery C. Heath, Navy/NASA

Judith A. Novelly, JPL

Mark Ripperda, USA EPA

Peter Robles, Jr., NASA

Richard J. Zuromski, Jr. NAVY/NASA

Reported by: Louise K. Mizota, CSR 2818

1 Pasadena, California
 2 December 7, 2000
 3 9:37 A.M.
 4
 5 ROBLES: Let's go around the room and introduce
 6 ourselves, starting with you.
 7 ZUROMSKI: Okay. I'm Richard Zuromski. I'm
 8 with the Naval Facilities Engineering Service Center
 9 and NASA.
 10 RIPPERDA: I'm Mark Ripperda with the U.S. EPA.
 11 DAVOL: Phebe Davol with TechLaw, a contractor
 12 to EPA.
 13 GEBERT: Richard Gebert, RPM for DTSC.
 14 NOVELLY: Judy Novelly, JPL.
 15 CARLOS: Alex Carols, Regional Board.
 16 ROBLES: Peter Robles, the NASA RPM for this
 17 facility.
 18 So everybody has an agenda. So what we
 19 wanted to go over, first of all, is Project Overview
 20 by the Navy. And we'll turn that over to Richard.
 21 ZUROMSKI: Great. I think that some of the
 22 things that we'll cover in the overview we'll cover
 23 in a little more detail later. But I wanted to give
 24 everybody an update on what we're working on and
 25 where everything is at this point.

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1 Start with administrative record. We have
 2 received the administrative record from Cal Tech,
 3 and the Navy is currently --
 4 ROBLES: Assessing.
 5 ZUROMSKI: -- assessing or analyzing the record
 6 just to see if it's complete and to give NASA
 7 recommendations if there needs to be anything else
 8 done with the record. It needs to be specially
 9 indexed. And we're also -- at the same time we're
 10 going to scan in the entire record onto electronic
 11 version, onto CDs, and so we'll have an electronic
 12 copy of the entire record so that it will make it
 13 easier for us to distribute any documents we need in
 14 the future at public meetings or whatever else we
 15 may need the documents for.
 16 And also going through the repositories in
 17 the different libraries in the area to make sure
 18 that they're complete. And that's basically what
 19 we're doing on that right now.
 20 We're supposed to have a meeting on the
 21 20th of this month here at JPL where they're going
 22 to give us their recommendations and basically go
 23 from there. But we should have an electronic copy
 24 of the administrative record before the first public
 25 meeting, which will be good if there's anybody who

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1 requests any documents, we can easily just zip them
 2 out to them. But everything will be in a PDF
 3 format, so they'll all be indexed and everything
 4 will make it easy to find. That's one thing we're
 5 working on.
 6 The second thing, I think we'll get in a
 7 little more detail on item number 4, but we have a
 8 contractor who is going to be taking over for Foster
 9 Wheeler at the soil vapor extraction pilot test.
 10 It's also going to be possible expansion of the
 11 pilot test. And we'll get into that a little bit
 12 more. But that contractor is currently on board,
 13 has submitted their preliminary workplan and health
 14 and safety plans and so they'll be taking off,
 15 taking over where Foster Wheeler left off.
 16 We have the contractor doing --
 17 (Gates and Heath entered
 18 the meeting room.)
 19 ZUROMSKI: We have the contractor, Battelle, who
 20 you did see a copy -- a predraft copy of the
 21 proposed plan. And they are currently working on
 22 that. Again, that's going to be a big item in
 23 number 2. We'll talk about that in a moment.
 24 We also have CH2MHILL, who's going to be
 25 doing our groundwater modeling and helping us with

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1 our site feasibility analysis for pumping and
 2 treating and containments in OU-3.
 3 We have, I think -- I think that's
 4 everybody. And so -- and Peter is going to pass
 5 this around. Do you want to pass this around now?
 6 ROBLES: Yes.
 7 ZUROMSKI: We're going to pass around -- we
 8 can't really give you a copy because it's not -- not
 9 all of its --
 10 ROBLES: Finalized.
 11 ZUROMSKI: -- finalized yet. But this is
 12 basically showing you what we're spending our money
 13 on, where the projects are and who's doing the
 14 work. But that will kind of show you what we're
 15 doing at this point. So you can just take a look at
 16 that at your leisure. But that will kind of show
 17 you what we're doing at this point.
 18 RIPPERDA: One of these, we'll look at it and
 19 pass it along.
 20 ZUROMSKI: Right. Just look at it and pass it
 21 along. It's not final yet, but there's a couple
 22 things on there that are pending. So we don't want
 23 to -- we can't really officially give it out to you
 24 quite yet. But if you do need it we can make
 25 copies.

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1 ROBLES: What we want to do is once we finalize
 2 this to give you a list of all of our contracts to
 3 show you where they're at and everything else. Not
 4 just the timetable of the Superfund schedule, but
 5 what is the Navy and all of the contractors in
 6 there.
 7 I'd like the two individuals who walked
 8 in, if they could identify themselves for the court
 9 reporter.
 10 GATES: Kimberly Gates.
 11 RIPPERDA: Who do you work for?
 12 GATES: I'm sorry. NFESC.
 13 HEATH: And I'm Jeff Heath. I also work for the
 14 Navy Facilities Engineering Service Center.
 15 ZUROMSKI: Jeff is my supervisor. And Kimberly
 16 is going to be helping us out with OU 2 work right
 17 now. And we'll kind of be like, hopefully like
 18 Judy's been to Chuck. Kimberly will be helping me
 19 out in a lot of the work that we're doing, since
 20 things are starting to expand rapidly. It's more
 21 than maybe I was expecting to do in the beginning.
 22 So Kimberly is going to be helping us out on this as
 23 well.
 24 ROBLES: Okay.
 25 ZUROMSKI: So anyway -- and another thing, back

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1 on that schedule for the different contractors, what
 2 you'll see is you'll see a lot of different names
 3 right now. And the reasons for that are, that's the
 4 way that we're trying to get -- basically handle the
 5 transition from Cal Tech, by using different
 6 contractors that have specific expertise in certain
 7 areas.
 8 But eventually, we see it as things being
 9 streamlined into either one or two major contractors
 10 that will do most of the work. But in order to --
 11 the way we've been getting the work from Cal Tech
 12 it's been easier to put it on these specific
 13 contractors, on their work plate rather than just
 14 trying to figure out who is going to do everything
 15 at once, because we didn't really know, since we're
 16 new to this game here. So that's our game plan at
 17 this point. And we'll be further finalizing and
 18 formalizing that in the future.
 19 ROBLES: As one of the items on the Project
 20 Overview, first item on our agenda list, is the
 21 recommendations that the Navy will present to NASA
 22 on the administrative record. We will want to talk
 23 to you and Cal Tech on that on a telecon in the
 24 future so we can make sure we're all on the same
 25 wavelength.

7

1 ZUROMSKI: Probably January's.
 2 ROBLES: Probably January will be the key is
 3 right now so that we have that.
 4 The same token is just give you the --
 5 Chuck Buril and Judy Novelly will still be involved
 6 from the standpoint they will still come to
 7 meetings. We still have a task order with the prime
 8 contract. They are involved from the standpoint of
 9 looking at Cal Tech's interest. They will have
 10 input because they have corporate memory here, so
 11 they will be an integral part of the meetings.
 12 All right?
 13 ZUROMSKI: Okay.
 14 ROBLES: Are there any questions or any issues
 15 on the first item or overview? Any ideas? Once we
 16 get into the specifics, I guess then we'll be able
 17 to talk a little more.
 18 RIPPERDA: Yeah. Nothing.
 19 ZUROMSKI: Okay.
 20 Number 2. We're going to leave this one
 21 to Peter, at least to start off.
 22 ROBLES: At least to start off.
 23 We are going to -- first of all, on the
 24 proposed plan, we are trying to get our contractor
 25 on board. We are hoping that CH2MHILL would be

8

1 awarded --
 2 ZUROMSKI: This is Battelle.
 3 ROBLES: Oh. I'm sorry. Battelle. This is
 4 Battelle. That we would --
 5 ZUROMSKI: Battelle has sent you all what we're
 6 calling our pre-draft version, which is really an
 7 internal draft to show you that we've done the
 8 proposed plan.
 9 What Peter is going to talk about here is
 10 when we did get that proposed plan submitted to our
 11 NASA folks for internal comment, some new issues
 12 came up that we hadn't perceived. And we are
 13 currently dealing with that right now. And that
 14 actually has to do with this little chart that we've
 15 passed around as well.
 16 ROBLES: The issue that came up at NASA
 17 headquarters is that even though CERCLA is
 18 functionally equivalent, there are specific
 19 guidelines that NASA needs to develop for the NEPA
 20 process. And one of the things that we want to do
 21 is make sure that our proposed plan incorporates
 22 that. And that's what we're asking Battelle to look
 23 at. And that's what this chart is.
 24 RIPPERDA: What document does this come from?
 25 ZUROMSKI: This is from a Department of Energy

9

1 guidance document. Because our -- the attorney that
 2 we -- general counsel is a formal Department of
 3 Energy person, and the best guidance that we've seen
 4 for any of this so far is from this Department of
 5 Energy document. So that's the reason why we're --
 6 we basically sent this document to the contractor to
 7 analyze and see where this little flow chart comes
 8 into play with the proposed plan.
 9 If you look on the chart, in Figure 2
 10 there are -- you have what you call the NEPA values.
 11 Then you have the CERCLA values, which is the CERCLA
 12 process. And then when you filter that through,
 13 these are the things that are left over that aren't
 14 covered by CERCLA. And the contractor is currently
 15 working on revising that proposed plan in order to
 16 meet these different requirements in NEPA.
 17 And what's happening is, on Monday of next
 18 week Battelle is sending us a new, revised draft
 19 that I told all of you about, how it's going to be
 20 pretty significant. The format maybe is going to be
 21 different from what we had sent you. And on
 22 Wednesday Battelle is coming out here, and CH2MHILL
 23 as well, and we're meeting with the general counsel
 24 here and with Peter to discuss how we're going to
 25 incorporate these types of NEPA values, not only in

10

1 the proposed plan that they're finishing for OU 2
 2 right now, but also in all of our future documents
 3 so that this is a known requirement. So all future
 4 documents you'll see will have this incorporated
 5 into it automatically, whereas this was kind of a
 6 new thing that popped in before we got this one out.
 7 GEBERT: So you have to do an EIR? Is that what
 8 you're --
 9 ROBLES: No. It's just that the proposed plan
 10 has to have these covered so it could be
 11 functionally equivalent all the way around. What
 12 the CEQ has basically stated is that even though by
 13 law CERCLA is functionally equivalent to NEPA, it is
 14 -- the evolution of NEPA has shown that there is
 15 some missing items in there for the CERCLA process.
 16 And so we want to make sure that we include that in
 17 there so that we have no problems in that sense.
 18 (Burl entered the meeting room.)
 19 ROBLES: That's one of the things we're looking
 20 at now. We're hoping that we can get you a copy to
 21 you on the 2nd of January. We would like that to
 22 start as the formal comment period for your draft
 23 for the proposed plan. If we get it earlier, we're
 24 going to send you RPMs a copy. We're still just
 25 going to say that the 2nd of January is the formal

11

1 start of the 30-day process. We're hoping we can
 2 get something earlier.
 3 I don't think it's fair to give you
 4 something before Christmas and New Year's and expect
 5 the clock to be ticking. That's not fair to you.
 6 But if we can get something earlier to you that's
 7 fine. But the clock will start on the 2nd of
 8 January. That will be formal. We can get it to you
 9 before that.
 10 RIPPERDA: And you're calling that the
 11 draft-final?
 12 ROBLES: The draft-final.
 13 ZUROMSKI: Well, no. I think we're actually
 14 going to call it just the draft. Because I don't
 15 think you have --
 16 ROBLES: I'm sorry. The draft.
 17 RIPPERDA: It's not quite fair to give us
 18 something that we haven't seen yet.
 19 ZUROMSKI: No, no. It will be the official
 20 draft. And what we're asking for, is a 30-day
 21 review will begin on the 2nd of January and we'll be
 22 due on the 1st of February, I believe. And then
 23 we'll probably have about a two-week turnaround for
 24 the draft-final and another 30 days from there and
 25 Peter will go through the rest of the schedule from

12

1 there.
 2 ROBLES: Right. So that's what we're looking at
 3 for that. Ultimately what we are looking at is once
 4 the draft and draft-final process has gone through,
 5 that we are tentatively scheduling public meetings
 6 on the weekend, week, Thursday-Friday --
 7 ZUROMSKI: Friday-Saturday.
 8 ROBLES: Friday-Saturday?
 9 ZUROMSKI: Yes.
 10 ROBLES: Are you sure?
 11 ZUROMSKI: Yes.
 12 ROBLES: Okay. Friday-Saturday, 6th and 7th of
 13 April or 13th and 14th of April. And what we are --
 14 we will come to you is to have a meeting before then
 15 so that we can state how we're going to do these
 16 public meetings together.
 17 GEBERT: What were those dates again, Peter?
 18 ROBLES: The weekend of the 6th. 6th-7th of
 19 April or 14th-15th of April.
 20 ZUROMSKI: That will be just for OU 2.
 21 ROBLES: It will be here on site. What we're
 22 going to look at right now. And that's one of the
 23 things I wanted to talk about.
 24 Is that too early? Is that too late?
 25 Anything else on that? Because what we want to do

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1 is kind of give the public meeting so that we can
 2 address this issue and also make sure that those
 3 plan, once it gets through so we can get our Record
 4 of Decision for OU 2 out there to the public.
 5 The format that we were looking at --
 6 first of all, is the time comfortable for you, for
 7 you guys?
 8 ZUROMSKI: That time is based on 30-day review
 9 for the draft, two-week turnaround, draft-final
 10 another 30 days, and then the final comes out like
 11 the last week of March. Give us -- we'll probably
 12 already have the planning done for the meeting, and
 13 then as soon as that proposed plan is finalized,
 14 we'll be having the public meeting just basically
 15 the week, weekend after.
 16 We're doing it on a Friday-Saturday,
 17 Friday for maybe people who work on weekends and
 18 Saturday for people who work during the week. And
 19 then that way we can cover everybody who would have
 20 any kind of concerns on the --
 21 RIPPERDA: Are you planning kind of an
 22 open-house format with posters? Are you planning
 23 like, you know --
 24 ROBLES: Booths.
 25 RIPPERDA: -- presentations, sections, twice?

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1 ROBLES: No, no. Booths. This is one of the
 2 things I wanted to talk about, is we are envisioning
 3 that each of the RPMs, NASA as well as Cal Tech will
 4 have a booth there with information.
 5 Yes.
 6 BURIL: Cal Tech is not an RPM.
 7 ROBLES: Or whomever. If Cal Tech wants to
 8 participate, or someone.
 9 We're also going to ask the Raymond Basin
 10 to have a booth there. We want to have the City of
 11 Pasadena and Lincoln Avenue if they want to
 12 participate in that as well. There will be booths,
 13 and we will have our information there for the
 14 people.
 15 If they have questions, we'll take those
 16 questions down, and then we will address them back
 17 again so that way people can ask those. We will
 18 have a place for them to add a mailing list. They
 19 probably are on the mailing list, but there are
 20 changes in address or form or anything else. We're
 21 hoping to have it in Von Karman so that they can
 22 come in, they can go around and look and they can
 23 stay as long as they want to and get information.
 24 That's what we want to do for over those two days.
 25 We felt that was the best way to do that. That way

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1 they can specifically ask questions on any of the
 2 issues that they have on that item.
 3 ZUROMSKI: They'll probably get more information
 4 from going to a specific booth, if you're amenable
 5 to this, of course. Going to the phantom issue that
 6 has to deal with the original Water Quality Control
 7 Board issue, they'd go to the Regional Board booth.
 8 If they had overall general questions about what
 9 we're doing, Peter and I would be there as
 10 representatives for NASA to answer any questions
 11 they would have.
 12 We have the same for you, possibly if
 13 we -- haven't talked with the stakeholders about
 14 this yet. But if the Raymond Basin, City of
 15 Pasadena, who are intimately involved in the entire
 16 process, would like to show their support for what
 17 we're doing as well, because it seems like they're
 18 on board with us --
 19 ROBLES: They're stakeholders.
 20 ZUROMSKI: -- have them there as well, because
 21 as far as from the public perception standpoint, it
 22 would show the public that we're all standing united
 23 on what we decide on.
 24 So that's why I want to make sure
 25 everybody is agreeable to this type of format as

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1 well. I think you get more information to the
 2 public through this type of format rather than
 3 having just we stand up there, telling them what
 4 we're doing, they can ask a few questions and
 5 everybody goes away. This is a little more open,
 6 public friendly than the other type of format. And
 7 if it works well, we would have the same for OU 1
 8 and 3 eventually.
 9 CARLOS: Do you still plan to have a formal
 10 presentation in addition to --
 11 ROBLES: Not -- that was not our plan.
 12 ZUROMSKI: No.
 13 ROBLES: We found that this is -- at DoD when I
 14 was working there, we found this is the best way
 15 because then the individual can actually ask
 16 questions of the -- and there's one on one and can
 17 get information if they want to and if they're
 18 interested. And we want our contractors there as
 19 well so they can answer the questions. We may have
 20 a booth just on SVE, soil vapor extraction, so that
 21 they can know what that is and show them a little
 22 bit, maybe maps of the area and so on. So that way
 23 they can ask questions and it can be an individual
 24 issue.
 25 ZUROMSKI: And also if you had just a formal

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1 presentation, you have to have it at a certain time
 2 and not everybody -- maybe somebody doesn't want to
 3 get there at 10:00 o'clock for the meeting. Maybe
 4 somebody wants to get there at noon because they're
 5 working on Saturday and have lunch. It makes it
 6 easier. So that basically we're giving a formal
 7 presentation to everybody who comes up and asks us.
 8 So it's more work, maybe, on our part because we
 9 have to over and over again, state what we're doing,
 10 but it's individualized. So it's more -- hopefully
 11 more effective, is the key. But if we needed to
 12 have like, for example, one presentation at a
 13 certain time during the day, we could do that as
 14 well, but we weren't planning on that.
 15 But that's something I think that we'll
 16 discuss probably by the next meeting. We'll have --
 17 the contractor will be here to tell you about how
 18 we're planning on doing this, and we can at that
 19 point have formal input on does this sound like a
 20 good idea or not. And we'll also schedule it with
 21 you to make sure we come up with a formal date,
 22 finalized date for when we want to do this.
 23 ROBLES: We would like to have a preplanning
 24 meeting for this.
 25 ZUROMSKI: Right.

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1 ROBLES: So we would probably have a working
 2 group meeting just to discuss about the public
 3 meeting, who do you want there, any space
 4 requirements you may have to be there. You're
 5 talking about bringing other people involved in --
 6 public affairs folks and so on and what you think
 7 about it so we can make sure.
 8 If we need to push the date further back
 9 because there are conflicts, that's fine, or that
 10 avenue. We think that's the earliest that we could
 11 have it. And that will allow us to meet that.
 12 GEBERT: I like the date. I'm comfortable with
 13 the date.
 14 ZUROMSKI: Okay.
 15 GEBERT: This would be like a half a day?
 16 ZUROMSKI: It would be probably a half a day
 17 each day.
 18 Probably from like 10:00 to 2:00 each day.
 19 And that way it gives us a good range on both days.
 20 It's pretty hard for -- unless somebody's out of
 21 town, everybody should be able to make time during
 22 those two times. And, of course, if somebody gets
 23 there at 2:00, we're not going to just say, "Oh,
 24 it's 2:00 o'clock. Time to go home." It could be
 25 open until 2:00 or something like that. But it

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1 would work out, we think, a little bit better that
 2 way.
 3 So that's our general plan. And I think
 4 that the overall schedule comes up based on having
 5 the public meeting, having the proposed plan. And I
 6 think the ROD should be done, based on this, by the
 7 end of August, I think, is the goal at this point.
 8 So we had envisioned having it done by the end of
 9 the fiscal year, which is October 1st, and we should
 10 easily make that at this point.
 11 So that's OU 2 at this point.
 12 ROBLES: Does anybody expect any issues or
 13 problems from your agency if you need to go back and
 14 talk about that? You guys have contacted your
 15 public affairs, or need to contact your public
 16 affairs folks?
 17 CARLOS: I don't see any problem.
 18 ROBLES: Okay.
 19 GEBERT: Yeah, I don't see any problem either.
 20 Usually for our RAB we have, you know, formal
 21 presentation. But open-house workshop, we do those
 22 also. So that's -- you know, we would have no
 23 problem with either format.
 24 ROBLES: We just want you to think about that as
 25 you go back and think if there are any special

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1 requirements that we need to provide for you or
 2 anything else, we want to make sure that we provide
 3 for that. Some people say, "Well, we need power
 4 because we've got some displays that we want to do"
 5 or "We have a presentation."
 6 RIPPERDA: The State and I are going to show up
 7 with really elaborate multi-media displays.
 8 ZUROMSKI: I've seen one of those EPA ones
 9 before. Those were pretty good.
 10 BURIL: Why am I believing this?
 11 ROBLES: The key is, you know, we felt, and I've
 12 seen this work the best way, because people feel
 13 much more at ease to ask questions instead of a big
 14 meeting where only -- we can entertain certain
 15 people and it just goes on and on and on. People
 16 get tired and walk out. This way it's almost
 17 individually that we're addressing it.
 18 The other question is that we want to
 19 think about inviting the public media, since this is
 20 a public meeting. Okay. So I want you guys to
 21 think about that. All right? Because there'll be
 22 probably some cameras out there looking and asking
 23 questions with lights in your faces. So that's one
 24 of the things I want you to consider on that.
 25 That's why I think we need a working group before,

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1 so we have at least one meeting focusing on the
2 public meeting, how it's going to be handled and the
3 logistics and other items and other issues.

4 ZUROMSKI: We can either do it in addition to
5 like on a separate day from the next RPM meeting or
6 we could do it -- we could make is a very long RPM
7 meeting. But I think it's probably going to take a
8 good half day just -- together just to show you what
9 we're planning, to plan it out to make sure that all
10 the logistics are taken care of.

11 GEBERT: I would think a separate meeting, like
12 a dry run type of thing.

13 ZUROMSKI: Exactly.

14 ROBLES: Yes.

15 ZUROMSKI: So that would be -- we haven't really
16 talked about meeting times or anything yet. But
17 that would probably be based on looking at
18 getting -- probably after the -- when we get to the
19 draft-final stage, probably be the beginning of
20 March time frame, a good month before the meeting.

21 ROBLES: We'll probably give you a call and ask
22 when would be a good time to meet after the holidays
23 and so on, just to have this as a working meeting.
24 Okay.

25 If nothing on item 2 -- I mean item 3,

22

1 let's go to 4. Operable Unit 2, Soil Vapor
2 Extraction Pilot Study.
3 ZUROMSKI: Okay. Like we talked about earlier,
4 we have a contractor that we brought on board to
5 specifically take over Foster Wheeler's work on the
6 SVE pilot study. It's Geofon, G-e-o-f-o-n. And
7 they will be -- actually, they just put out a site
8 trailer last weekend, on Saturday. They just
9 submitted their workplan to continue Foster
10 Wheeler's work, which basically is the same -- is a
11 very slight modification of what Foster Wheeler has
12 already submitted in the past.

13 Since it's a pilot study, and I know
14 there's not really a formal requirement as far as a
15 review for you, I'm asking from you -- we're going
16 to modify the operating plan for the one we have out
17 here a little bit based on some performance things
18 that we want to play with when we're working on the
19 SVE.

20 So would you want to see a copy of that at
21 this point, when it goes
22 like -- when we have like a draft-final version of
23 it?

24 RIPPERDA: Does this involve expanding the
25 system at all, or just --

23

1 ZUROMSKI: This one doesn't. This one is just
2 for tweaking what we have currently. What's going
3 to happen, though, is we're going to have a separate
4 workplan for expanding it. And I know you're going
5 to want to see that one, because that will involve
6 possibly adding additional extraction wells -- well
7 or wells, an additional system and how we will
8 operate the two systems, whether it will be
9 concurrently, or how we phase the operation of the
10 two. That will be a separate item that will be
11 coming out.

12 And I'm not sure, and Kimberly might be
13 able to tell me, maybe, did it say in the current
14 workplan when they are expecting to have next
15 workplan for the expanded, or --

16 MS. GATES: No. There's no mention of the
17 system.

18 ZUROMSKI: There's not. Okay. But there's no
19 mention of -- do you remember when -- so I'm not
20 sure when that's supposed to come out. They're just
21 going through their original workplan right now and
22 trying to figure out what we've got going out there
23 anyway.

24 So I would say probably that's another
25 January item. We'll be reviewing the expanded pilot

24

1 study workplan. And so I will -- I don't know how
2 we've done that in the past with Foster Wheeler, if
3 we sent you just the initial draft or if we just
4 sent you like a draft-final.

5 Do you have any preferences?

6 RIPPERDA: By doing things as a pilot, you run a
7 slight risk in that -- I imagine you're going to, in
8 your expanded pilot, ramp it up to whatever you
9 expect to have your final operation be. I'm sure
10 you're going to be committing capital and resources
11 to it. And then we're going to do the ROD after
12 that. And then your remedial design document will,
13 in essence, just be this is what's working.

14 But at that point if any of us regulators
15 are unhappy with what you have, you haven't given
16 us, you know, full review opportunity, we're going
17 to come to you and say "You're remedial design is
18 inadequate. You need to change it" and you're going
19 to say, "Well, we just changed it six months ago."
20 And we're going to say "Tough."

21 ZUROMSKI: Okay.

22 RIPPERDA: So you should either give us, you
23 know, full chance to review the pilot study --

24 ROBLES: Before.

25 RIPPERDA: -- or you should be willing to --

25

1 ROBLES: Accept changes.
 2 RIPPERDA: -- accept changes after the ROD.
 3 ZUROMSKI: Okay. That's fine. I don't think --
 4 I think that at this point, then, we probably won't
 5 send you what we're doing just to get this thing
 6 rolling again.
 7 RIPPERDA: If you're tweaking operations, you
 8 know, let us know what you're doing. But I don't
 9 need to review --
 10 ZUROMSKI: Okay.
 11 ROBLES: I want to have as much input from the
 12 RPMs before. I always understand this is a dynamic
 13 system and as more information comes in we may have
 14 to change systems that are in place after a Record
 15 of Decision has been done. That's common.
 16 The key also is that the proposed plans
 17 need to also be sent to the Raymond Basin so that
 18 they can make their comments on the impacts to the
 19 adjudicated groundwater. So we have a lot of
 20 stakeholders involved in there. So I expect that
 21 there will be changes. The key is that we would
 22 like to minimize that at the ROD stage. But I don't
 23 envision that we're going to say, "Hey, we got a
 24 ROD. We can't change." That's not -- that's not
 25 correct.

26

1 RIPPERDA: The ROD doesn't really memorialize
 2 the design.
 3 ROBLES: Right.
 4 RIPPERDA: It memorializes --
 5 ROBLES: The decision.
 6 RIPPERDA: -- the decision. The design document
 7 that says how many bore holes, how deep, what
 8 pressures.
 9 ROBLES: Right.
 10 RIPPERDA: And that's what you spent money on
 11 January and February on, new bore holes and new
 12 bores, and come September, October, November, where
 13 you want to be saying, you know, "This is our design
 14 and we're unhappy with it." As far as -- there
 15 could be some potential trouble by ramping up your
 16 pilot study now without giving us --
 17 ROBLES: Adequate time.
 18 RIPPERDA: -- primary document kind of reviews.
 19 ZUROMSKI: Okay. No, I think we'll do that,
 20 then. We'll do the regular review cycle for the
 21 expanded pilot study. And that way it will make it
 22 easier. Because you're right. If this works, and
 23 as we've seen through the work Foster Wheeler's
 24 done, it's been very successful. We're having the
 25 contractor evaluate whether or not there is a need

27

1 or where that need would arise for additional wells
 2 for additional extraction. I know that Foster
 3 Wheeler had talked about that in general in the
 4 past, but there was never really any "This is where
 5 you should put a well." We're looking at that right
 6 now. And then when and if that happens, which
 7 should be January time frame, we'll just start the
 8 formal review. Because even by the time while you
 9 guys are reviewing it and while they're getting
 10 ready to drill and do all that other stuff, we might
 11 as well have it all done at the same time to kind of
 12 streamline the process. So okay. We can do that.
 13 ROBLES: Talk about schedule?
 14 ZUROMSKI: For the SVE?
 15 ROBLES: Yes.
 16 ZUROMSKI: Let's see. The SVE contractor,
 17 activities, expansion. The schedule looks like, at
 18 this point, and I'm not sure, Kimberly might be able
 19 to tell us more about this because she's going to be
 20 involved in this heavily, is it looks like they're
 21 going to be getting out -- we're getting the final
 22 comments on the workplan out this week.
 23 MS. GATES: Yes.
 24 ZUROMSKI: And that's for the draft workplan for
 25 that they're doing at what we're calling Site A,

28

1 which is your initial site. And they'll probably,
 2 since there is Christmas holiday, they'll probably
 3 be starting either -- over the next couple weeks
 4 with some break. Do they have a schedule in there?
 5 GATES: According to the schedule and general
 6 workplan now, their start-up meeting is December
 7 19th.
 8 Zuromski: Okay.
 9 gates: So that's when they plan to start
 10 working.
 11 ZUROMSKI: So that's when they'll actually be
 12 out here looking at what's out there. I mean,
 13 they've seen the system, but they actually haven't
 14 played with anything yet. So it looks like at least
 15 for the 19th is the schedule at this point. And so
 16 then they'll be operating that. And then once
 17 they -- I think what they're going to try to do, and
 18 correct me if I'm wrong, but they're going to try to
 19 do is start operating the system, see how it's
 20 working, see what -- see what it takes to operate
 21 it, then do the workplan for the expanded study.
 22 So that way they have some idea of how
 23 this system has been operating so they can,
 24 hopefully, apply the success we've had here so
 25 whatever sites we may move to in the future. So

29

1 what we're calling this one right now is, we're
 2 calling Site A, and then we're going to move on to
 3 sites B and then, if necessary, C as well. That's
 4 what we're looking at. So that's the general
 5 schedule for what should be going on that.
 6 I think we're also trying to clarify, and
 7 I'm not sure in the Foster Wheeler workplan how they
 8 had operated in the past, whether it was -- when
 9 they had certain criteria that they met when they
 10 shut off and then let it rebound and turn back on.
 11 I don't know. Chuck might have more information on
 12 that.

13 But we're trying to clarify that in this
 14 workplan. When they hit a certain asymptotic level,
 15 that's the point where they shut it off, do their
 16 monitoring, look at the monitoring, then make a
 17 judgment of when to turn it back on or which screens
 18 to turn back on. Because it wasn't too clear, I
 19 don't think, from what we've seen. So we're trying
 20 to make it -- this is the way we're going to do it
 21 so it's just obvious when somebody looks at it what
 22 we're doing.

23 And I think a lot of that is based on the
 24 learning curve that Foster Wheeler went through. So
 25 we're trying to capitalize on what's already been

30

1 report was concerned --
 2 ZUROMSKI: Okay.
 3 BURIL: -- those are available. But heretofore
 4 no one expressed a need to have the actual --
 5 ZUROMSKI: Okay.
 6 BURIL: -- formal report. The data appeared to
 7 be sufficient for the time being.
 8 ZUROMSKI: Okay. Then what I will tell you is
 9 if you want a copy of those reports, I have a ton of
 10 them. I have three boxes of them in my office if
 11 you do want them.

12 But what I also wanted to talk about, and
 13 this is probably to be part of the expanded soil
 14 vapor -- SVE study, will be more a formalized, if
 15 necessary, soil vapor monitoring program. And
 16 whether that's quarterly or that's based on the
 17 performance of the system, it could be more regular,
 18 it could be less. We don't know. We're going to
 19 ask the contractor to look into that.

20 And so I wanted to see if you had any
 21 input on, since in the past we've never really had
 22 any real formal plan for quarterly monitoring. I
 23 mean, we've been doing it ourselves.

24 Do you have any input on what you'd like
 25 to see in such a plan? Do you want us to do a

32

1 done.
 2 So that's the general schedule for that.
 3 And I think another issue will be with the
 4 monitoring, with the soil vapor monitoring. I know
 5 that in the past what we've done is quarterly soil
 6 vapor monitoring.

7 Oh, and we should talk about those
 8 documents in my office.

9 Foster Wheeler has been sending you, I
 10 believe, maybe by e-mail information on the soil
 11 vapor monitoring for the quarterly monitoring
 12 they've been doing.

13 No? Nothing at all? Okay. I know that
 14 in the past, I guess from what Chuck has told me,
 15 that nobody really ever -- you guys didn't want all
 16 these extra documents for the soil vapor pilot study
 17 and the quarterly soil vapor results.

18 I have all these in my office. If for
 19 some reason you do --

20 BURIL: Rich, one correction. We usually would
 21 pass out the table of results that came from studies
 22 at RPM meetings.

23 ZUROMSKI: uokay.

24 BURIL: So I know that kind of data has been
 25 available to the agencies. As far as the formal

31

1 quarterly? Do you want us to do it based on
 2 performance? Is there a benefit either way?
 3 CARLOS: I think, Mark, in one of the documents
 4 before the SVE pilot study, before they got the
 5 pilot study, I think there was a plan, like a
 6 monitoring plan --

7 BURIL: There was.

8 ZUROMSKI: Okay

9 CARLOS: -- concerning schedules and criteria,
 10 you know, at what point they shut down the system
 11 when you begin monitoring.

12 BURIL: Yes. There was a formal presentation of
 13 a plan prior to the implementation of the program.

14 ZUROMSKI: Okay.

15 DAVOL: Richard, does it make any sense for, I
 16 guess, Geofon, they've done some analysis for all of
 17 this soil vapor data, right, that you're talking
 18 about?

19 ZUROMSKI: Yes.

20 DAVOL: Is there any way of them digesting it
 21 into something that would -- because that would
 22 explain why they're tweaking this system, right

23 ZUROMSKI: Uh-huh.

24 DAVOL: Because they're doing something based on
 25 the results. Right?

33

1 ZUROMSKI: Uh-huh.
 2 ROBLES: You want the rationale for that.
 3 DAVOL: Do you think that makes sense?
 4 ROBLES: Yes
 5 BURIL: Let me remind the group that currently
 6 Foster Wheeler, as one of their close-out items, is
 7 in the process of summarizing all of the soil vapor
 8 extraction --
 9 ZUROMSKI: Okay
 10 BURIL: -- work done thus far. And I think that
 11 any kind of additional summarization by Geofon would
 12 be aided greatly by that report.
 13 ZUROMSKI: Okay.
 14 BURIL: So rather than Geofon taking raw data
 15 from what we currently have --
 16 ZUROMSKI: Uh-huh.
 17 ZUROMSKI: -- I think it would be more useful to
 18 wait for that report --
 19 ZUROMSKI: I agree.
 20 BURIL: -- to come through and then on the basis
 21 of that information, whatever other kinds of
 22 analysis that you would want to have put before you,
 23 give Geofon the opportunity to have the benefit of
 24 that report and then go on from that.
 25 RIPPERDA: But when is Foster Wheeler going to

34

1 have their summary?
 2 BURIL: I would have to check with them. I'm
 3 not sure. I believe it's the end of this month, but
 4 that's one of the things I'd have to double check.
 5 RIPPERDA: I don't really want --
 6 ZUROMSKI: Okay.
 7 RIPPERDA: -- your volumes of raw quarterly
 8 monitoring results.
 9 ZUROMSKI: Are you sure? They're nice binders
 10 and everything. There's five of them. And if you
 11 like them I'd give them to you.
 12 RIPPERDA: No.
 13 ZUROMSKI: Phoebe? No?
 14 DAVOL: No.
 15 ZUROMSKI: No takers?
 16 RIPPERDA: But I would love to see the summary
 17 Buril: It's a great doorstop.
 18 RIPPERDA: I got plenty of those.
 19 ZUROMSKI: Okay.
 20 RIPPERDA: Certainly before we look at, you
 21 know, changes to the existing pilot study, you know,
 22 wells, whatever, we want to see the current summary
 23 plus, you know, whatever goes into a justification
 24 for whatever it is you want to change or add.
 25 ZUROMSKI: Okay. That's a good idea. So we'll

35

1 probably just wait for Chuck's summary to come out
 2 before we'll take any further action as far as how
 3 we're going to actually digest this data and put out
 4 something new. I think that they probably done that
 5 to some extent, but I think that Chuck's right, that
 6 that would aid us and aid Geofon in doing that. And
 7 I will make them aware of that, because I wasn't
 8 aware that was happening. So -- okay.
 9 RIPPERDA: And then the workplan for the pilot
 10 study --
 11 ZUROMSKI: Uh-huh.
 12 RIPPERDA: -- It wouldn't really have the full
 13 recipe for, you know, when to turn it off and all
 14 that --
 15 ZUROMSKI: Uh-huh.
 16 RIPPERDA: -- but certainly you'd have that by
 17 the time you do the ROD.
 18 ZUROMSKI: Okay. Well, we're actually asking
 19 them to do it -- to do a little bit more than has
 20 been done to -- maybe not 100 percent, since it is
 21 still a pilot study, this is the exact time we'll do
 22 it because we do want them to tweak it to maximize
 23 the performance. But at this point there hasn't
 24 really -- I mean, it's been a pilot study. When
 25 Foster Wheeler needed to tweak something, they

36

1 tweaked it. And so we're trying to just help them
 2 get a idea of what they're going to do, because we
 3 just want to make sure that we know what they're
 4 doing as well. So that's the idea around kind of
 5 formalizing their process. But you're right. Since
 6 it is still is a pilot study, if they needed to vary
 7 it for some reason because they needed to tweak this
 8 or tweak that for performance reasons, we encourage
 9 them to do that, of course. Okay.
 10 What about as far as the vapor monitoring?
 11 So I guess From what Chuck's telling me, that it was
 12 presented to you in the past. But since we haven't
 13 actually -- you haven't been receiving formal
 14 reports, you've just maybe been getting some data at
 15 meetings. Is there an interest in the way that it's
 16 been done in the past, just continuing just to give
 17 you data or -- on a regular basis, or do you have
 18 any preferences as to if we're doing it based around
 19 the performance of the two, one or two different
 20 sites that are operating? Because we might have to
 21 take it more frequently rather than quarterly.
 22 Is there any kind of ideas that you have
 23 on that?
 24 GEBERT: I don't see any need, really, to see
 25 any quarterly data. Especially on the pilot study.

37

1 ZUROMSKI: What about just generalized? Maybe
 2 just --
 3 DAVOL: Summary.
 4 GEBERT: A quarterly report.
 5 ZUROMSKI: Right. Right. Maybe a quarterly
 6 report on what's been done.
 7 GEBERT: What's been done.
 8 ZUROMSKI: Because I'm trying to see -- I mean,
 9 I think that there was maybe a need in the past to
 10 have a quarterly report on soil vapor ex -- on the
 11 soil vapor results to help us in operating the
 12 system. But, you know, do we -- if we even -- maybe
 13 we only need to do, you know, a semiannual round of
 14 everything, but since -- because we're doing so much
 15 more around the pilot studies themselves.
 16 So should we propose something like that
 17 to you in the workplan or -- see, I'm not really
 18 sure.
 19 BURIL: May I make a proposal?
 20 ZUROMSKI: Sure. Uh-huh.
 21 BURIL: I think one of the things that's going
 22 to be key for our folks to understand is, the
 23 changes within the soil vapor extraction study take
 24 place, what is the impact to the overall soil vapor
 25 situation in the ground.

38

1 ZUROMSKI: Right.
 2 BURIL: So within the workplan, it would be my
 3 thought that there should be some form of monitoring
 4 that is able to track not only what the
 5 concentrations are in the ground so we simply know
 6 what the mass of the contaminant is still there --
 7 ZUROMSKI: Right.
 8 BURIL: -- but also what changes are affected as
 9 a result of the changes that are put into place
 10 through the changes in the SVE pilot. You get
 11 double bang for your buck, so to speak, in that
 12 regard, because now you can understand what you're
 13 dealing with as far as whether you've made a right
 14 change or a wrong change in the SVE system. And
 15 you've got data to back it up.
 16 ZUROMSKI: Uh-huh.
 17 BURIL: So certainly any kind of long-term pilot
 18 study ought to include a monitoring program of some
 19 kind.
 20 ZUROMSKI: Right.
 21 BURIL: Quarterly would make sense only in so
 22 much as more frequent is horribly expensive and
 23 doesn't give you a whole lot of data, a whole lot of
 24 useful data, in my opinion. And less frequently may
 25 or may not reflect the number of changes that you

39

1 make within your pilot study.
 2 ZUROMSKI: Okay. Well, we -- the other thing
 3 is, see, we haven't even -- the contractor hasn't
 4 even touched on the subject yet. So I'm basically
 5 looking for input such as Chuck's giving me as to
 6 when I do meet with them what I want them to do.
 7 Because they're really not familiar with what's been
 8 going on in the past. So the whole idea here is to
 9 make sure that we do get the data that we need to
 10 back up the performance of the system as well as the
 11 changes in time, the changes of mass in the ground.
 12 RIPPERDA: Right. And reporting that you've
 13 done or that JPL has done in the past shouldn't
 14 really matter for the future, you know, because this
 15 started as a pilot study.
 16 ZUROMSKI: Sure
 17 RIPPERDA: And it's like, "Okay, it works. Oh,
 18 we're getting stuff out of the ground. So, oh,
 19 let's just keep running it." And, you know, we all
 20 said "Oh, cool. We'll get some mass out of the
 21 ground. So keep running it." We didn't really care
 22 that much of what was going on because it was kind
 23 of gravy, like, oh, you've got some holes in the
 24 ground, you're sucking stuff out --
 25 ZUROMSKI: Uh-huh.

40

1 RIPPERDA: -- just keep on doing it. So now it
 2 probably -- it is time to give us a report of all
 3 the wells that have been running, how much mass has
 4 been taken out, you know, pressure graphs per well,
 5 you know, pressure effects on monitoring wells so
 6 when we look at it, you know, final design and we
 7 can see if we agree or not. So we should have
 8 one --
 9 BURIL: Let me be sure that you realize that the
 10 Foster Wheeler report will be providing a lot of
 11 that information.
 12 RIPPERDA: That's why I wasn't saying anything,
 13 you know -- I was just saying a report that we see
 14 needs to have all that kind of stuff.
 15 BURIL: I would suggest that whatever report
 16 Geofon put together incorporate basically the same
 17 approach that Foster Wheeler had used all the way
 18 along. And at the same time, if there's a change to
 19 the current monitoring program that's necessary
 20 based on the results that we see --
 21 ZUROMSKI: Uh-huh.
 22 BURIL: -- that should be discussed prior to
 23 implementing it.
 24 ROBLES: Right.
 25 BURIL: There certainly needs to be something,

41

1 you know, known by the agencies prior to actually
 2 implementing a change. Otherwise, everyone sits
 3 around going "What happened?"
 4 ZUROMSKI: Right.
 5 ROBLES: It will be in the proposed plan, for
 6 the expansion, to you guys. And I would like to see
 7 a sampling and monitoring protocol in there from the
 8 standpoint of what we want to change so that they
 9 can have a chance to look at it and approve of it at
 10 the same time.
 11 RIPPERDA: In the workplan.
 12 ROBLES: In the workplan.
 13 BURIL: When you say "workplan," you're talking
 14 about the SVE expanded pilot.
 15 ROBLES: Right.
 16 ZUROMSKI: Right.
 17 BURIL: The one coming in January. Is that
 18 right?
 19 ZUROMSKI: Well, based on what we've seen so
 20 far, I'm not sure of the exact schedule, but I think
 21 January is what they're looking at, based on
 22 their -- they've been analyzing the data for over a
 23 month now and they're ready to come into the field
 24 for the first system. So based on that, and based
 25 on -- remember the meeting we had with them that one

42

1 day, I'm pretty sure that they said it was going to
 2 be on the heels of the other one, because they're
 3 basically analyzing the data and looking at the
 4 performance of this one and saying "Where else can
 5 we make a dent in the --"
 6 BURIL: At some juncture those two efforts need
 7 to merge.
 8 ZUROMSKI: That's what's -- that's probably
 9 what's going to happen. Between probably what we
 10 submit to you, because we'll probably end up getting
 11 an internal draft before we even give it to you and
 12 somehow we'll be merging what Foster Wheeler's done,
 13 what Geofon is continuing to do and what Geofon
 14 plans to do all into one kind of plan.
 15 DAVOL: The Foster Wheeler report will talk
 16 about all of the operation conditions.
 17 BURIL: It will talk about all of the various
 18 parameters that they've been measuring over the
 19 course of time and the results as they were able to
 20 discern based on all the data that they have
 21 currently. And once that's taken care of, that
 22 would form, I would think, the basis of any data
 23 needs that may be still outstanding for an expanded
 24 program. And then the workplan would reasonably be
 25 able to point those out and then identify how you

43

1 would gather those data to fill the gaps.
 2 CARLOS: When is the completion time at Foster
 3 Wheeler?
 4 BURIL: I'll have to double check that. I
 5 believe it's the end of this month, but I'll double
 6 check with that and let you know.
 7 ZUROMSKI: Well, that should coincide well with
 8 what we're doing, so -- okay. Well, that's good. I
 9 didn't know about that.
 10 ROBLES: Anything else on number 4, item number
 11 4?
 12 Okay. Let's go, then, to item number 5.
 13 BURIL: Pete, can I back up for just one quick
 14 minute?
 15 ZUROMSKI: Sure.
 16 BURIL: The question that I have is, since we
 17 did have this, you know, relatively formal proposal
 18 in front of the agencies some time ago for a soil
 19 vapor monitoring and that we had implemented that
 20 over the course of time --
 21 ZUROMSKI: Uh-huh.
 22 BURIL: -- are we now indicating that we are --
 23 suspended that particular program pending the
 24 development of the new one?
 25 ROBLES: Huh-uh.

44

1 RIPPERDA: No.
 2 ZUROMSKI: No. We are taking the next round of
 3 soil vapor samples.
 4 BURIL: I just wanted to be sure that that
 5 was --
 6 ROBLES: We're not suspending anything.
 7 ZUROMSKI: No. If any changes come it will be
 8 in the expanded plan that we'll agree to. But, no,
 9 the contractor is actually -- I think it's --
 10 BURIL: So it will continue as per status quo
 11 until such time as the plan is agreed upon.
 12 ZUROMSKI: Right.
 13 ROBLES: The way I like to operate is, we're not
 14 going to change anything unless we have proposed
 15 that to the RPMs --
 16 ZUROMSKI: Right.
 17 ROBLES: -- they have a chance to look at it and
 18 make recommendations.
 19 BURIL: I misinterpreted what was said. It
 20 sounded to me like we were going to stop until we --
 21 ZUROMSKI: No, we're not going to stop. We're
 22 going to continue, and then through the new expanded
 23 program we'll probably -- at that point we're all
 24 going to look -- we're going to have the contractor
 25 look at what's been done --

45

1 BURIL: Okay.
 2 ZUROMSKI: -- and analyze it to say what is the
 3 best way to go. And if that is -- if that is the
 4 status quo, then that's what we'll continue to do.
 5 But if they come up better based on, since they're
 6 adding a new system, since they're going to continue
 7 to operate the one here, if there's a better way,
 8 hopefully they'll propose that to us.
 9 But no, they are on contract right now
 10 to -- I think they're supposed to come out within
 11 the next month to do the regular quarterly soil
 12 vapor monitoring. And also the groundwater
 13 monitoring, too.
 14 ROBLES: Yup.
 15 ZUROMSKI: So that is ongoing.
 16 BURIL: Okay. Great. Thanks.
 17 ZUROMSKI: Sure.
 18 ROBLES: Okay. If nothing else on number 4,
 19 let's go to item number 5, Groundwater Pilot Study
 20 Status, starting with U.S. Filter Fluidized Bed
 21 Reactor.
 22 We've had to --
 23 ZUROMSKI: Yeah. I called Mark about this. And
 24 I know that --
 25 And Alex, I'm not sure to what extent you

46

1 were involved with the letter we received from Mark
 2 Pumford. Maybe not at all. I don't know. Okay.
 3 I don't know. I really didn't know what
 4 was -- where that letter was coming from at that
 5 point.
 6 But basically, we've been operating since
 7 we received the letter from the Regional Board, and
 8 then the subsequent letter from the EPA saying let's
 9 go forward and move forward with this system. We've
 10 been achieving great results with the perchlorate
 11 from the FBR, had nondetect coming out of it pretty
 12 much the entire time. They did have some -- one
 13 upset during the -- when we first started to back up
 14 through the FBR because they were tweaking the
 15 amount of food they were feeding the bugs and so we
 16 had one hit that came out higher, but, of course, it
 17 didn't go into the effluent because we had the ion
 18 exchange on the end, which was to basically take
 19 care of that kind of process.
 20 ROBLES: Explain FBR.
 21 ZUROMSKI: The fluidized bed reactor?
 22 Everybody -- I guess, Phebe, you're the
 23 only one who hasn't seen our pilot --
 24 DAVOL: I haven't seen it yet.
 25 BURIL: And we're not going to let you, either.

47

1 DAVOL: I'm familiar with the concept.
 2 ZUROMSKI: The fluidized bed reactor is
 3 basically, they are taking the groundwater out of
 4 the ground, pumping it through the bottom of the
 5 fluidized bed media made up of granular-activated
 6 carbon where they've grown a biofilm of
 7 perchlorate-reducing and nitrate-reducing bacteria.
 8 Groundwater flows up through the media.
 9 The bugs degrade the perchlorate and nitrate. Not
 10 sulfate, just perchlorate and nitrate. If you
 11 degrade sulfate, then you get H₂S. You don't want
 12 to do it with that. They have it -- basically, they
 13 have it made so that when the last of the
 14 perchlorate is degraded the reaction stops, goes
 15 through some aeration and then also back through
 16 granular-activated carbon to remove any VOCs in the
 17 groundwater and actually, some of which are removed
 18 in the bed as well. And then there's ion exchange
 19 on the end.
 20 So what we were finding is that the ion
 21 exchange was treating -- yes.
 22 BURIL: You missed the bag filter between the --
 23 ZUROMSKI: There is a bag filter. And that
 24 removes just the excess biosolids.
 25 So there are some excess biosolids there

48

1 that are produced.
 2 So basically what we found was that the
 3 system, we've had excellent reduction, perchlorate,
 4 nitrite to nondetect levels. Zero VOCs. We've had
 5 four GAC beds. There's not enough VOC concentration
 6 to go through the four GAC beds at all. The only
 7 problems we had, which we talked about several
 8 months ago, was with the sulfate and the chloride,
 9 which are two levels. The levels that were proposed
 10 by the Regional Board are Basin Plan levels based on
 11 mineral content. And we were having some problems
 12 meeting those because we don't have any treatment
 13 for those. We're basically -- and we're also not
 14 adding to them. I think we're -- the groundwater is
 15 coming out around 25 parts per million of chloride
 16 and we're putting it back in
 17 25 -- I think 25.7, because there is some -- when
 18 you degrade perchlorate in situ you're degrading
 19 about 700 ppb of perchlorate. We're getting a
 20 little bit of chloride. But again, the range of
 21 magnitude is very insignificant.
 22 Then the same thing with sulfate. We're
 23 pulling it out of the ground around 44 and we're
 24 putting it back in at 44. So what we're -- one of
 25 the issues we figured we'd use is, we have the ion

49

1 exchange on the end to act as a failsafe for
2 perchlorate in case there was some upset in the
3 system, which there hasn't been to this point. And
4 so what we had was we were -- just fortuitously we
5 were also treating sulfate in the ion exchange,
6 which was great. You know, we weren't really
7 expecting to do that, but that was fine. Then what
8 we found was eventually the sulfate was loaded up on
9 the ion exchange.

10 And so we had this issue with, okay, well,
11 so now we're basically pulling it out at 44, putting
12 it back in at 44. We said, well, we better --
13 should we change the ion exchanges. So we tried
14 changing the ion exchange. And by doing that we
15 brought our sulfate levels back down to nondetect.
16 But what are you exchanging them for? Chloride. So
17 then we were going to -- we were spiking up our
18 chloride concentrations.

19 So there was really -- it's like a no-win,
20 catch 22 situation. So we basically decided, and I
21 talked with Mark about this the other day, was that
22 instead of spiking up our chloride to these levels
23 instead of -- and having the -- maybe the benefit of
24 having a short-time reduction of sulfate, just to
25 have one -- we're using one ion exchange bed right

50

1 now that's already loaded with sulfate but still is
2 a failsafe for perchlorate, that -- so we're
3 basically -- sulfate and chloride we're putting it
4 in -- pulling it out and putting in at the same
5 level as we originally had expected back several
6 months ago, but -- and what we had decided really
7 did come true, based on the operation results.

8 So basically, the only things that we have
9 been -- as we said in our letters, was the chloride
10 and sulfate don't meet the Basin Plan requirements
11 as I think everybody did know, and we -- but
12 everything else has been nondetect. So that's been
13 the general results throughout this whole study.

14 And we've been -- I think we've learned a
15 lot through a lot of these little upsets, such as
16 when it's time for full-scale operation how are we
17 going to handle chloride and sulfate, because they
18 are well below the drinking water levels, which are,
19 I think, 250 ppb. But if we are going to think of
20 any type of reinjection in the future, there's a
21 possibility we're going to have to use Basin Plan
22 levels.

23 So I think we've learned from the
24 different little upsets we've had, but we still
25 haven't figured out a good way to deal with those.

51

1 That wasn't really the goal of this test anyway.
2 The goal of this test was to see how we could treat
3 perchlorate in the groundwater.
4 BURIL: Richard, have you done anything with
5 regard to the robustness of the system to deal with
6 spikes or --

7 ZUROMSKI: Yeah.

8 BURIL: -- valleys within concentrations?

9 ZUROMSKI: Well, one of the big things that we
10 did was when we shut down for three weeks back in
11 October, we started it right back up again and they
12 were expecting a lot of the biofilm to have had died
13 during that time because there was no perchlorate
14 feeding it.

15 Well, the system started right back up
16 nondetect. So that was a good thing from the
17 robustness of the bugs themselves survival. If the
18 system ever goes down we know that just by
19 recirculating the water through it we're able to
20 keep the bugs alive and so the system would --
21 technically, should work on a full scale the same
22 way.

23 BURIL: Does that account for the potential for
24 the substrate itself to absorb perchlorate --

25 ZUROMSKI: In -- I --

52

1 BURIL: The substrate that's within the
2 fluidized bed --

3 ZUROMSKI: Uh-huh.

4 BURIL: -- being carbon

5 ZUROMSKI: Uh-huh.

6 BURIL: -- if that was --

7 ZUROMSKI: That was part of it, uh-huh. Yes.

8 BURIL: Have you been able to determine whether
9 or not that is adding to your removal efficiency or
10 not?

11 ZUROMSKI: I do not know. I will see that in
12 the final report. But I know that it was a factor,
13 because they did use virgin carbon in the start up
14 of the bed. And that carbon, as we also found on
15 the front end of the system when we originally had
16 some of the carbon on the front end, was taking up
17 perchlorate because of the low concentrations that
18 we have. And that is one thing.

19 So what we ended up doing is while we were
20 running in recirculation mode we did spike the
21 system with perchlorate to, number one, load the
22 bed, the carbon bed with perchlorate so that we
23 wouldn't be treating it with the carbon anymore. We
24 would make sure that we're treating it only with
25 biological. We also saw -- we started, I think,

53

1 with levels anywhere from 250 to 300 ppb coming in.
 2 And we're up to about -- I think we've hit 750 and
 3 800 at some points during the last couple weeks
 4 coming out of the well. Of course, all nondetect.
 5 As we expected, we were more looking for the lower
 6 ends to see how it treated at lower food. But what
 7 we found is that the high nitrate concentrations in
 8 the groundwater at the site
 9 have -- basically keep the bugs alive by themselves.
 10 So it doesn't even matter if we have 300, 200, 700
 11 ppb of perchlorate. As long as we have that nitrate
 12 in there, that's what the bugs are truly feeding off
 13 of and that's what's keeping them alive.
 14 BURIL: When you say "high nitrate," what are
 15 you talking about?
 16 ZUROMSKI: Between four and six, I think, ppm, I
 17 think are the numbers that they're getting right
 18 now.
 19 BURIL: That's a nomenclature thing. I find
 20 that pretty low, myself.
 21 ZUROMSKI: Well, low compared to maybe another
 22 place.
 23 BURIL: Okay. Go ahead.
 24 ZUROMSKI: According to their -- to what they're
 25 looking at, that's high nitrate, because normally

54

1 there's very little nitrate in a normal system that
 2 they'd be just treating perchlorate.
 3 So anyway, just basically made the system
 4 that much easier to operate and it's that much more
 5 efficient. So they've had -- so they have -- you
 6 know, they have tweaked the system a little bit
 7 based on the amount of food they've been giving it,
 8 which is ethanol. And so basically they've tried to
 9 tweak it as much as they can, working with the
 10 concentrations we have in the groundwater here. And
 11 thus far, there hasn't been any issue with the
 12 system to be unable to degrade perchlorate or
 13 nitrate. So from that end of the test, it's worked
 14 very well.
 15 From the end of the test with the sulfate
 16 and chloride, we've learned a lot on our -- what's
 17 going to help us and what's not going to help us.
 18 How we'll deal with that in the future will be
 19 something that CH2MHILL will be working on,
 20 basically taking the results from the three pilot
 21 tests that we're doing and trying to figure out what
 22 we can do on full scale. And I think the data we
 23 have from this pilot test will definitely help them
 24 in trying to make that determinations.
 25 ROBLES: It's clear that one of the major issues

55

1 is the Basin Plan. It's going to be a major driver
 2 in what alternatives we use and what technologies do
 3 we use. It's going to be a main driver in that.
 4 That came very clear from the initial issues of what
 5 comes out.
 6 ZUROMSKI: Uh-huh.
 7 ROBLES: And it's not just the focus of the
 8 chemical we're trying to treat. It's the byproducts
 9 that come out is going to be the major issue on
 10 this. They may be limiting our options. But so be
 11 it. That's what we have to live with here.
 12 RIPPERDA: When you say "byproducts," you're not
 13 talking byproducts --
 14 ZUROMSKI: No. Just things that are in the
 15 ground already.
 16 RIPPERDA: (UNINTELLIGIBLE)
 17 ZUROMSKI: Right.
 18 ROBLES: Well, the Regional Board used it as a
 19 byproduct, even though we're putting it back in the
 20 ground the way we took it.
 21 RIPPERDA: We haven't even really tried yet.
 22 Don't give up before you try.
 23 ZUROMSKI: Right.
 24 ROBLES: Well, that's the key. Then we're going
 25 to have to talk about life cycle costs, engineering

56

1 and all that other because -- I know what you're
 2 saying.
 3 RIPPERDA: I'm saying, "Don't say, 'Oh, my God,
 4 they're going to make us do reverse osmosis on the
 5 back end.'" So we can't do anything.
 6 ROBLES: No.
 7 ZUROMSKI: No. And actually we'll get to that
 8 in the next one. What we're hoping to do is based
 9 on the results of the Calgon pilot study, the U.S.
 10 Filter pilot study and the Foster Wheeler one that
 11 we do in January. Those will look -- most of those
 12 are looking at perchlorate. But such as we found
 13 with the U.S. Filter one, we've also seen something
 14 that we can use based -- for things like chloride
 15 and sulfate, and how we're going to make that design
 16 decision. So no, I think that is an evaluation
 17 that's going to be done. But no, it's not limiting
 18 us in any way.
 19 RIPPERDA: Okay.
 20 ZUROMSKI: It's just saying this is what you can
 21 and this is what you can't do.
 22 RIPPERDA: It sounds like you can still reduce
 23 chloride and sulfate, that's great. But if you
 24 can't economically, you know, Mark Pumford's defense
 25 this time, if this was just a little pilot study

57

1 and, you know, sure, an engineer from Regional Board
 2 had come out. But kind of hit them over the head at
 3 the last minute. We've got at least a year of lead
 4 time before --
 5 ZUROMSKI: Right.
 6 RIPPERDA: -- you're going to be doing anything.
 7 ROBLES: Right.
 8 RIPPERDA: There is some variations in the
 9 Basin. The Basin Plan is for surface discharge and
 10 you can do things a little differently if it's
 11 groundwater injection. Some ways it's tougher.
 12 Some ways it's easier. But, you know, I'm sure the
 13 Regional Board -- his group was kind of ambiguously
 14 willing to let you proceed with this. But with more
 15 briefing in detail up front --
 16 ROBLES: Right.
 17 RIPPERDA: -- you might get a more suitable
 18 resolution to chloride and sulfate.
 19 ROBLES: The U.S. Filter fluidized bed reactor
 20 pilot study, in my mind, I was hoping before then
 21 to, I guess naively, thought there might be the
 22 silver bullet out there that would help us clean up
 23 everything that would meet all the requirements.
 24 But it's going to be much more difficult. And I
 25 think the issue becomes for us now, economy is now a

58

1 big issue. And I know that shouldn't be the main
 2 driver, but it's going to be a main issue of, you
 3 know, will we need that. Because from our
 4 preliminary meetings with -- was it Cockindall?
 5 BURIL: Kuykendall.
 6 CARLOS: Kuykendall.
 7 ROBLES: The Regional Board has some very
 8 stringent requirements about reinjection. We're
 9 using it for Operable Unit 2, that it's going to
 10 make it more difficult for us. We're going to try
 11 to meet that. But that's going to be one of the
 12 major issues. I was hoping that we could have that
 13 silver bullet of technology work on all the issues.
 14 It's going to be much more difficult.
 15 BURIL: I would kind of point just in kind of a
 16 hesitant sort fashion what's taken care of the
 17 chloride and sulfate in the U.S. Filter system is
 18 the technology that Calgon tested. It's ion
 19 exchange.
 20 ZUROMSKI: Well, it's only taking care of the
 21 sulfate.
 22 BURIL: Right. Right.
 23 ZUROMSKI: But with the problem of having
 24 chloride being exchanged in there --
 25 Buril: No, you're right.

59

1 ZUROMSKI: -- it's always a catch 22.
 2 BURIL: It's the same thing that we had with
 3 Calgon.
 4 ZUROMSKI: But this study, the U.S. Filter study
 5 is -- they're just about complete. They're going to
 6 be shutting down right before Christmas, the week of
 7 the 18th. And basically it will sit for a couple
 8 weeks before they move it out because they usually
 9 try to do all this on the weekends. Since it will
 10 be Christmas time, there won't be anybody here.
 11 We're just going to try to avoid that.
 12 So probably the first week of January
 13 we're going to pull out the U.S. Filter system and
 14 then move to the Foster Wheeler packed bed reactor
 15 system. That should be, I think probably the second
 16 week of January that one's going to be put in based
 17 on, you know, getting that contractor up and rolling
 18 at this point. So --
 19 RIPPERDA: The packed bed reactor is very
 20 similar overall to the fluidized -- the biological
 21 reactor is going to be different, but you'll still
 22 have all the other components.
 23 ZUROMSKI: Right. Actually what we're doing is
 24 this is -- originally our idea was to use one small
 25 packed bed reactor to -- just to see if the concept

60

1 works. But we've actually expanded it a bit to --
 2 actually, we're going to have three reactors running
 3 at lower flow rates, probably about 2 gpm each
 4 testing different type -- testing basically the
 5 robustness of not only of the packed bed reactor but
 6 different biological media. One is a -- one was
 7 proposed in the Foster Wheeler draft pilot study, or
 8 draft FS for OU 1 and 3. It was Perc one ace. It
 9 was by UC Riverside. It's a proprietary bacteria
 10 that they use. We're going to be testing that.
 11 We're also -- also based on the results of
 12 our microcosm studies that we did for this site we
 13 have -- one of our Navy contractors has isolated a
 14 perchlorate-reducing bacteria natural to the JPL
 15 environment. We're going to use that in the second
 16 reactor. And then we're going to use the same
 17 bacteria that's in the U.S. Filter reactor. We're
 18 basically going to scoop some of the biomass out of
 19 this one when we're done and add that to a third
 20 reactor. So we're testing not only the viability of
 21 the packed bed reactor idea but also of different
 22 types of organisms that we can use to do degradation
 23 of perchlorate.
 24 BURIL: Wasn't the base thought for what we're
 25 currently testing the (UNINTELLIGIBLE) filter, the

61

1 AeroJet system?
 2 ZUROMSKI: It was. But it's a food processing
 3 waste, is what it is.
 4 BURIL: Right. Right.
 5 ZUROMSKI: Basically, since it's been so
 6 successful on a fluidized bed, we figured why not
 7 try it on a packed bed.
 8 BURIL: Absolutely.
 9 ZUROMSKI: The design is a little different, but
 10 at the same time it may be just as successful. So
 11 we don't want to limit ourselves.
 12 BURIL: The reason I bring that up is that
 13 particular strain is one that's been used on an
 14 exceptionally large system at AeroJet in Rancho
 15 Cordova.
 16 ZUROMSKI: Uh-huh.
 17 BURIL: So that one has already demonstrated an
 18 ability to scale up and do so somewhat successfully.
 19 ZUROMSKI: And the same with the one on the USC
 20 Riverside. They did some limited bench scale tests
 21 with Foster Wheeler for the FS and had some pretty
 22 good success with that one. And then we had,
 23 through our microcosm study that was done through
 24 Envirogen, they showed that not only for in situ,
 25 but maybe ex situ remediation, that we have a bug

62

1 that we can use naturally occurring. And you know
 2 that when you use a naturally-occurring bacteria
 3 there's more success that it will be robust in the
 4 system, because you're sending the groundwater with
 5 that bacteria through the system. It's going to be,
 6 maybe, possibly more effective.
 7 And so at the same time that's going to
 8 maybe help us with our in situ studies. But that's
 9 a whole 'nother thing that we're going to work on as
 10 well, so -- that looks like it's going to be January
 11 time frame.
 12 And then we have in situ pilot study which
 13 CH2MHILL is going to help us on to some extent.
 14 They did work for the Navy in Texas. They did an in
 15 situ. Actually, they did injection wells -- an
 16 injection well barrier of -- it was actually -- I
 17 think it could have been a slurry wall. I'm not
 18 sure. But they basically did a mile-long trench of
 19 in situ at a Navy site in Texas using in situ
 20 remediation for perchlorate and had very good
 21 success.
 22 BURIL: Please tell me you're not going to dig a
 23 trench.
 24 ZUROMSKI: No. No. Basically what we're going
 25 to do is capitalize on that same type of technology

63

1 and do it through extraction and injection in situ
 2 treatment rather than having a trench.
 3 No, we're not going to dig a 200-foot
 4 trench a mile long on the site because -- somehow I
 5 don't think that's going to happen.
 6 BURIL: It would be an 800-foot trench a mile
 7 long.
 8 ZUROMSKI: Yeah. But that at this point we're
 9 waiting for CH2MHILL to get on board on working on
 10 that. We have them doing other stuff. But that
 11 will be one of the things they'll be helping us
 12 with.
 13 And the selection of the contractor
 14 possibly could be the same one that they used in
 15 Texas, but I'm not sure. But that looks like it's
 16 going to be springtime as well, because moving into
 17 item number 6, we can talk about under item number 5
 18 as well, the data that we're getting from all these
 19 four different pilot tests will be used by CH2MHILL
 20 along with data on extraction and modeling and
 21 reinjection and to basically come up with some
 22 different remedies, proposed remedies for OU 3. So
 23 trying to get all this done in the springtime so
 24 that we can make a, you know, very -- you know, a
 25 good selection of technologies or combination of

64

1 technologies to get the site cleaned up.
 2 So go back to number 5. Are there any
 3 further questions on the pilot study status?
 4 ROBLES: We're doing a lot of pilot study
 5 because we want to have as much alternatives as
 6 possible. And the way to do that, we think it's
 7 going to take a complete matrix of different
 8 technologies to be able to do this as we continue
 9 so. So I know we're spending a lot of time and
 10 effort, but I think it's worthwhile for us.
 11 And you can't find this information out
 12 there. We're at the cutting edge of it. So I see
 13 this as a benefit that hopefully we will find some
 14 type of technology. I'm still looking for that
 15 silver bullet.
 16 ZUROMSKI: Or silver bullets.
 17 ROBLES: Silver bullets, yes.
 18 BURIL: As long as you don't point one at your
 19 head, Peter.
 20 ROBLES: No other questions, let's go on to 6,
 21 our introduction to our New Groundwater Contract.
 22 Groundwater contractor is going to be CH2MHILL.
 23 We've had a little bit of difficulty getting them on
 24 board, but we're hoping that in the next couple
 25 weeks we'll get them on board, and one of their

65

1 main efforts is going to be modeling. Modeling is
 2 one of the major issues that has been requested from
 3 NASA headquarters and from other people. So we're
 4 going to put a major emphasis on that.
 5 Our thing is that even though I think we
 6 have a superior modeling, more than what MWD had for
 7 this area, we want to get even more finer than that.
 8 This is under report, our item number 7 issue, which
 9 I will get into more later. But the opinion is that
 10 we may need to do a little more investigation to get
 11 our modeling up to speed. We may be looking at and
 12 proposing to you that we may have to dig some more
 13 sampling --
 14 ZUROMSKI: Monitoring wells.
 15 ROBLES: -- monitoring wells.
 16 ZUROMSKI: Yeah. They're going to -- CH2MHILL,
 17 through their modeling is going to be looking at
 18 several things. They're going to be looking at,
 19 number one, data gaps that will impact our ability
 20 to put in, you know, a well-defined system in OU 3.
 21 They're going to be looking at injection or
 22 extraction and injection, the reinjection,
 23 infiltration, whatever it may be, options
 24 specifically because we do have a goal now that
 25 we're shooting towards containing the plume.

66

1 So they will be modeling specifically for different
 2 scenarios that we're going to be looking at.
 3 And so like Peter said, if there is an
 4 issue that we need to add extra monitoring wells, we
 5 will do so. And at the same time, they will be also
 6 supporting, to some extent, what Peter will talk
 7 about later. Possibly we might be able to get the
 8 Arroyo Well from City of Pasadena if we replace that
 9 well somewhere else. And part of that modeling
 10 effort will be where to properly place their new
 11 drinking water extraction well so it's not in the
 12 middle of a plume, so it's not anywhere where we're
 13 going to have to deal with any type of impacts again
 14 on it in the future.
 15 So that will be another part of the
 16 modeling effort.
 17 Yes.
 18 BURIL: You've indicated the need for more work
 19 to fill data gaps.
 20 ZUROMSKI: I haven't indicated the need. I've
 21 indicated that they're going to look to see if there
 22 is a need.
 23 BURIL: Okay. That is not what I heard.
 24 ZUROMSKI: I have not indicated. I don't really
 25 know. And that's what they're going to be doing.

67

1 ROBLES: They may say that there's enough data
 2 there already.
 3 ZUROMSKI: Right. They're basically taking the
 4 Foster Wheeler model that was done through mod flow.
 5 BURIL: That's what I was going to ask. What
 6 model are they planning to use?
 7 ZUROMSKI: It's going to be something based on
 8 mod flow. I don't know exactly.
 9 BURIL: That's fine.
 10 ZUROMSKI: But there's a few different 3D
 11 systems that they were looking at. But they are
 12 going to base it on mod flow. And based on their
 13 analysis of what Foster Wheeler has already done and
 14 what we have indicated our goals are for the site,
 15 that's what they're going to be looking at in
 16 greater detail since now we have some specific
 17 objectives for where we want to go. So they'll be
 18 doing that.
 19 They'll also be doing, Mark, as you've
 20 requested in the past, they'll be helping us with
 21 any type of DH 97, DHS 97-005 effort that we may
 22 need to assist City of Pasadena with. Hopefully by
 23 providing them, if possible, with a new well to
 24 replace the Arroyo Well, because we'll be using that
 25 one for extraction, we can model around and try to

68

1 figure out where they can put it without having to
 2 use that. I mean, that's one of the ideas. Whether
 3 or not we can do that, we don't know yet. But that
 4 will be something we'll be looking at. And also to
 5 come up with a plan for in the event that it does
 6 arise, they will come up with a short plan analyzing
 7 this policy to see how we, as NASA, will have to
 8 help and in what manner will help City of Pasadena
 9 in the future, if we need to.
 10 ROBLES: We'll tell you, Mark, we have asked the
 11 see of Pasadena, they have no plans to submit a
 12 97-005 permit. But we want to be prepared for that
 13 if it does come up, as you suggested. So we're
 14 pushing that as a major issue. That was a big item.
 15 ZUROMSKI: And then finally, incorporating the
 16 modeling, incorporating all the pilot study data
 17 into a selection of a system or basically probably
 18 an analysis of several alternatives, selection of
 19 some types of systems that we can present to you in
 20 what we're going to call probably some kind of
 21 feasibility assessment.
 22 Rather than a feasibility study, I think
 23 what our plans are at this point is to do this
 24 through some type of nontime critical or some type
 25 of removal action. Whether it's time critical or

69

1 nontime critical, we haven't decided yet. But
 2 instead of going through the feasibility study
 3 analysis first, through an actual formal feasibility
 4 study, do it through this method because of the
 5 urgency of the problem. And then when we're
 6 basically -- this will be -- this will become the
 7 feasibility study eventually. But instead of going
 8 through the formal -- going through the plans of the
 9 feasibility study, we'll be doing it through EE/CAs
 10 or whatever other types of documentation we need to
 11 do to push it through as a removal action so that we
 12 can get out in the field and protect the monitoring
 13 wells that are threatened at this point.

14 So that's the plan at this point. And
 15 that's what CH2MHILL will be doing for us. They
 16 haven't started doing that for us yet, so I don't
 17 know what -- I don't really have any results to show
 18 you at this point. But we will -- things will be
 19 moving fairly quickly in the next three months, I'd
 20 say.

21 ROBLES: Going to number 7, to piggyback on
 22 number 6 on that, we have had two meetings with the
 23 City of Pasadena, one here, and then we went, myself
 24 and our attorney, went to talk with the Pasadena
 25 Power & Light manager, who is interim now for about

70

1 six months until they find a permanent
 2 director.

3 We have been waiting for them to submit a
 4 proposal. Their original verbal thought process is
 5 that they would like to deed us, give us, whatever,
 6 lease us, whatever, the Arroyo Well that has been
 7 closed. And we've asked also for them to look at
 8 the Beiner site, which is up on it as a place for
 9 putting in potentially future remedial technology
 10 train up there. In that what they want is for us to
 11 compensate them so that -- for lost opportunities
 12 and also for putting in another well to replace that
 13 one. That's where we're looking at the monitoring
 14 issue.

15 I've had discussions with NASA
 16 headquarters, and their basic comment is as long as
 17 it meets the NCP and as long as it meets what our
 18 proposals are and our regulators approve of it, we
 19 can go forth. We can't make any promises as yet
 20 about, you know, lost opportunity and other issues.
 21 And that will be negotiated. But nobody can make a
 22 recommendation on which way we're going to go until
 23 we see the proposal.

24 We were supposed to have the proposal from
 25 the City of Pasadena, the engineering proposal two

71

1 weeks ago. We still haven't seen it. So they're
 2 still working on it. I think that they were under
 3 the assumption this is going to be easy for them.
 4 It's not. They're going to have to sit down and
 5 talk about it and look at what they want to look at.
 6 But that's what we're -- we're working
 7 very closely with them because we see this as a
 8 win-win for all of us. If we could get that Arroyo
 9 Well -- I already talked, I said, with NASA
 10 headquarters. What we will probably do, if we could
 11 get the closed Arroyo Well, probably officially
 12 close that and put our own well in there, because
 13 that seems to be right in the middle of the plume
 14 and use that as an extraction well and then do the
 15 technology treatment that needs to be done and then
 16 bring it back on site to reinject.
 17 The issue is where would we put the
 18 replacement well so that we can get back on line.
 19 That's where the modeling comes in. We want to make
 20 sure that we deal with that.
 21 ZUROMSKI: I think we're also going to model
 22 scenarios for their pumping, based on their pumping
 23 schedules as well. And that will impact where a new
 24 well goes, because we don't want it to impact our
 25 extraction well. And we also want them to possibly

72

1 tone down the extraction of maybe their Well 52 --

2 ROBLES: Right.

3 ZUROMSKI: -- so they're not drawing the plume
 4 towards them anymore. And by giving them a new well
 5 they can extract at higher rates, maybe they can
 6 tone down this one to help us in our remedial
 7 activity, so -- but all these are part of this
 8 engineering plan that they're supposed to be
 9 submitting to us. And that's what we're waiting
 10 for.

11 ROBLES: We're waiting for that as well. So
 12 that's where the status is. Once we know more about
 13 that, one of the things we wanted to do is bring
 14 that up in an RPM meeting to show you what they
 15 proposed, what we're looking at so we would have
 16 your inputs on that as well. Because the issue of
 17 where that well goes has to be within the scope of
 18 the CERCLA process as well. It's an item that we
 19 want to --- we will be looking at providing them --
 20 It will be their well, so they would be inputting
 21 it -- we would provide funding for that in whatever
 22 mechanism that is, whether it's compensation or what
 23 have you, we're not sure. No deals have been
 24 struck. Nothing has been promised. It's just that
 25 we're just at the discussion process as well.

73

1 We're trying to leave the lawyers out of
 2 it. We want to make this an engineering issue
 3 before we get into any formal agreements on what it
 4 is and compensation and so on. And that's why we
 5 had a private meeting with the director at his
 6 office to say "Let's focus on the engineering.
 7 We'll deal with the legal compensation issues
 8 later." But let's make this as an engineering issue
 9 to be able to do that.

10 One of the things we had talked about is
 11 that we would want to support them in the modeling
 12 so that the selection of where that well would be
 13 would be optimum for everybody. It would include
 14 all of the operations of not just the City of
 15 Pasadena, and us, but also the Raymond Basin, what
 16 they have with their adjudication and their MWD
 17 project that they were planning on doing.

18 ZUROMSKI: Because that might have some --
 19 again, the conjunctive use with MWD, especially if
 20 they're putting in Colorado River water, would be an
 21 issue for our site. So we're trying to look at all
 22 that because we don't want them adding further
 23 perchlorate into the basin where we're going to have
 24 to start cleaning up because they're putting water
 25 in here.

74

1 We're trying to make this a win-win all
 2 the way around so that we're encompassing our
 3 remedial objectives and our objectives for assisting
 4 the City of Pasadena all into one plan rather than
 5 we do our thing and they do their thing, and then,
 6 you know, who knows what happens from there. So we
 7 don't want to do that.

8 RIPPERDA: So there's a lot going on there.

9 ZUROMSKI: Yes.

10 RIPPERDA: What do you think is a timetable for
 11 you guys getting control of the Arroyo Well and
 12 selecting a site for injection?

13 ROBLES: First of all, we're waiting for their
 14 proposal, at which time we would analyze it and turn
 15 it around, hopefully, once we get it. And that was
 16 a key issue. They said that they would get it to us
 17 by the end of November. Here it is the 7th of
 18 December and we still haven't seen it. Nor the last
 19 contact with them do they even have an idea of when
 20 they could get it. They originally went into this
 21 thinking that, oh, it's easy. We can bring it
 22 together, put something and give you a proposal.
 23 It's not as easy as they thought because they've
 24 had some internal issues. Once we get that, we were
 25 looking at turning this around within about 30 or 60

75

1 days to find out through our engineering analysis
 2 and see, and then there would be a couple of
 3 iterations on that.

4 What I want to do, we have the -- the
 5 driver in all of this, for you RPMs, is that at the
 6 end of next year the agreement is up for renewal.

7 Is that correct, Chuck?

8 BURIL: That's correct. End of September.

9 ROBLES: The end of September the City of
 10 Pasadena agreement is up for renewal. So that's
 11 one of the -- that's the main driver, because we're
 12 trying to incorporate any issue that changes that in
 13 the agreement. And that's the main driver for both
 14 of us. So we do have a time line that we would like
 15 to see before the renewal is up. At least come to a
 16 meeting of the minds on how we're going to do this.

17 ZUROMSKI: Well, I think there's --

18 RIPPERDA: So my same question. It's like you
 19 just -- plus or minus a few weeks here of getting
 20 something from them makes it sounds like you're
 21 ready to start pumping their well in a month or two.

22 ZUROMSKI: No.

23 RIPPERDA: I can't believe that.

24 ROBLES: No.

25 RIPPERDA: Is it a year from now? Six months

76

1 from now? Two years from now?

2 ZUROMSKI: Well, I think our original plan was
 3 to have -- to be actually starting to pump -- no --
 4 was to start pumping in January, February '02. And
 5 that is going to depend on several factors. I mean,
 6 we're going to be doing -- CH2MHILL is going to be
 7 doing their work at the same time in parallel with
 8 the negotiations with the City of Pasadena. So
 9 there's not going to be like we do ours, they do
 10 theirs, we do ours. And we're supposed to,
 11 according to our current schedule, by, I think the
 12 end of April, beginning of May time frame, or --
 13 well, you'll hear about this before then. We want
 14 to have finalized our decision of what we're going
 15 to -- our removal action will be out there in OU 3,
 16 so which means probably in March -- March time
 17 frame, March-April time frame, we'll be giving you
 18 some ideas. And whether or not that's through
 19 formal EE/CAs or whatever we need to do, depending
 20 on what type of removal action we're going to do,
 21 we'd like to have a decision made because we need
 22 about six months to get something in place out
 23 there.

24 So we want to make that decision by the
 25 middle -- beginning or middle of summer so that six

77

1 months later we can be pumping.
 2 RIPPERDA: Okay. That answers my question. So
 3 you plan to have enough modeling done in about five
 4 months --
 5 ZUROMSKI: Oh, yeah.
 6 RIPPERDA: -- to have a proposal for what your
 7 action is going to be, and you actually plan to
 8 implement the proposal in about a year.
 9 ROBLES: Right.
 10 ZUROMSKI: I'd say a year, year and three
 11 months. I'd say that depending on how soon we get
 12 our modeling rolling and CH2MHILL is going to be
 13 doing -- Foster Wheeler has already done extensive
 14 amount of work. And what they're going to be doing
 15 is capitalizing on that.
 16 Again, we're trying to capitalize as much
 17 as what's already been done to get this going as
 18 soon as possible. And capitalizing on that work to
 19 make sure we get our decisions in place as soon as
 20 possible. Because another thing they're going to be
 21 looking at is a time to impact to the next wells,
 22 how -- you know, how soon do we need to do this in
 23 order to keep from impacting further wells down the
 24 line, and what kind of recommendations can we make
 25 to the City of Pasadena to keep that from -- that

78

1 delay, delay as long as possible so we can get our
 2 system in. So we're going to be trying to work
 3 those kind of issues as well.
 4 ROBLES: My personal timetable is Monday is a
 5 trigger date for me that I have to call the City of
 6 Pasadena to say "Where's the proposal?" Because by
 7 the end of this month, if they still haven't done a
 8 proposal, I can't stop because we still got to get
 9 to next year to get the item in there. I'm going to
 10 say, "Look, we're going to have to press on.
 11 Hopefully we're going to incorporate what you have,
 12 but please give it to us as soon as possible." They
 13 had promised it by the end of November. And I know
 14 that they're having problems with trying to get that
 15 proposal together.
 16 And it was basically an interim proposal.
 17 It was not supposed to be taken to the City Council.
 18 It was just basically internal engineering, what
 19 they thought and what they were looking for so that
 20 at least we could start working on an idea of what
 21 they wanted and some ideas of how they wanted it
 22 done so that we can incorporate it in our plans.
 23 But if -- if I don't get an answer by Monday, I've
 24 got to call them and say, "Hey, we've got an issue.
 25 The clock is ticking. We've got to keep moving."

79

1 ZUROMSKI: In a nutshell.
 2 ROBLES: So that's where we're at. We were
 3 hoping we would have a proposal by the end of
 4 November and at least at this meeting we could talk
 5 to you about what they wanted so that we could ask
 6 your inputs on it. That was our main goal, for
 7 pushing this RPM meeting to the 7th of December.
 8 So --
 9 RIPPERDA: I don't see that as that big of a
 10 problem. You still know conceptually that somehow
 11 you're going to be pumping water either out of that
 12 well or a new well in that location.
 13 ZUROMSKI: Right.
 14 ROBLES: Right.
 15 RIPPERDA: Whatever the details are, you know,
 16 that can be worked out. But if you're going to be
 17 doing that you're going to be providing them with
 18 money to drill a new well somewhere yet to be
 19 determined. So whatever their exact proposal is
 20 that you're waiting for, I don't see it holding up
 21 the process to getting a remediation system in place
 22 in a year and four months. I know (UNINTELLIGIBLE)
 23 because like you have some paperwork you need to do
 24 right this second, but --
 25 ZUROMSKI: We're doing it all at the same time.

80

1 So if we don't get the agreement until the end of
 2 next year, hopefully we'll have conceptually come to
 3 agreement that we can -- that our contractor will
 4 already be working on getting that system in place.
 5 ROBLES: If it was that easy, Mark, I could tell
 6 you yeah. But it's the other stuff above that, you
 7 know, what are they seeking beyond that that was a
 8 concern to us. That was one of the major issues we
 9 wanted to talk a little bit about. Because I think
 10 that if it was that simple, we would be in
 11 negotiations right now. We can't, because they're
 12 seeking other items in there. That's tied into the
 13 agreement that we have right now, so that's a big
 14 concern for us. We're going to press on one way or
 15 the other, that's one of the things. Either -- if
 16 they still can't get us the Arroyo Well, we're going
 17 to ask that we get permission to put our own well in
 18 there, because as NASA headquarters says, we will
 19 probably not use -- they were under the assumption
 20 that if they gave us the Arroyo Well we would use it
 21 as an extraction well. We don't believe that we can
 22 use a production well for an extraction well. We
 23 will probably have to put our own well in there.
 24 RIPPERDA: That's because it's not screened
 25 optimally?

81

1 ZUROMSKI: Probably not.
 2 ROBLES: And it's old and it's in need of
 3 maintenance. That's one of the major issues, that
 4 we felt that we could optimize the extraction by
 5 putting in our own and closing that one.
 6 ZUROMSKI: CH2 will be looking at what's been
 7 done in the past at that well, where have -- what
 8 zones has that been removing and containing the
 9 plume as it did for so many years and trying to
 10 mirror that into a new well specifically directed to
 11 target those zones. And they'll be looking at, you
 12 know, the history of that well, pumping history,
 13 where those screens are. It's screened on several,
 14 like five or six levels, so -- and we know that the
 15 bulk of the contaminant concentrations that are
 16 certain levels so we don't want to pump diluted --
 17 pump from the bottom and treat cleaned water, pump
 18 from the top. We want to contain the plume. That's
 19 our goal here. It's not -- this is not the be all,
 20 end all, as we all know from the tree, is not to
 21 clean up the aquifer method. It's to contain the
 22 plume to keep from impacting it further, then look
 23 at possible, like our in situ work for treating the
 24 source on site kind of as an overall plan. But the
 25 first priority is to get that containment going so

82

1 we don't impact any -- we don't want to shut down
 2 any more wells than's already been shut down.
 3 ROBLES: So that's where we are on that.
 4 Any questions on any of the issues we
 5 talked about with the City of Pasadena, OU 1 and 3?
 6 RIPPERDA: On the CERCLA process, if you would
 7 prefer to do an EE/CA and a removal action, that's
 8 okay. At least it allows for public involvement.
 9 You know, I imagine the public is going to be much
 10 more concerned with this than they are with your
 11 on-site SVE.
 12 ROBLES: Yes.
 13 ZUROMSKI: Uh-huh.
 14 RIPPERDA: In which case I would prefer to see
 15 you guys do an FS and a ROD.
 16 ZUROMSKI: Uh-huh.
 17 RIPPERDA: I know that's tougher, and I'd
 18 rather -- you know, given an either/or situation,
 19 I'd rather have you doing the work faster with an
 20 EE/CA than slower with a ROD. But it seems like
 21 with a year and four months, if you really work
 22 that, you might be able to do an FS this summer and
 23 have a ROD in place by January-February. You could
 24 do an interim ROD.
 25 ZUROMSKI: Uh-huh.

83

Side 22

1 RIPPERDA: But, you know, otherwise --
 2 ROBLES: Okay.
 3 ZUROMSKI: Well, I think that we will -- we,
 4 basically, will have our contractor tell us what
 5 they can and can't do. And we will let them know
 6 that's your recommendation. That's valid.
 7 ROBLES: Why we're pushing for the removal
 8 action is because the ancillary issues surrounding
 9 the Arroyo wells is really what's driving this.
 10 They came to us because they see that other wells
 11 are being impacted and they have the same problems
 12 with those wells that they have with the Arroyo. So
 13 there is a sensitivity issue on their part and they
 14 feel that they can't wait. I thought that that
 15 would have been the main driver for us to get a
 16 proposal as soon as possible. But it seems to be a
 17 little more difficult than we thought.
 18 The other thing that I wanted to bring is
 19 item 8 on Other Items is we have a problem with this
 20 endangered species issue out there. It's going to
 21 be a main driver on that. So that's one of the
 22 things that -- why we felt that maybe in a removal
 23 action may help speed the process in getting this
 24 out there. We're planning to have a meeting with
 25 the Fish and Wildlife folks in Ventura the end of

84

1 January when they finally -- after they get their
 2 recommendation on what they consider critical
 3 habitat. We're hoping that this area here, the
 4 Arroyo Seco, is not considered critical habitat.
 5 But if it is, we've got another layer of issues that
 6 have to be dealt with.
 7 BURIL: Recognize that the determination of
 8 whether it will be designated a critical habitat or
 9 not comes at the end of January.
 10 ROBLES: Right. So that's why the issue of
 11 leaning to a removal action is going to --
 12 RIPPERDA: That's what I don't understand
 13 (UNINTELLIGIBLE) the removal action with habitat
 14 issues.
 15 ZUROMSKI: Still have to deal with it.
 16 RIPPERDA: Yeah, you still have to deal with it.
 17 My biggest problem with the military always rushing
 18 towards removal actions as a way to speed the
 19 process up is -- the way it speeds the process up is
 20 you give interested parties less chance to be
 21 involved. So it makes me nervous when I hear like
 22 "Oh, we'll do a removal action" so we can kind of
 23 sneak around this endangered species habitat issue.
 24 You know, I wouldn't want you to be creating
 25 potential problems for yourselves by irritating Fish

85

Pages 82 - 85

1 and Wildlife or making the public feel like they
 2 didn't have full involvement.
 3 ZUROMSKI: I think the reason may be going
 4 towards EE/CA would be because if we do have to go
 5 through the FS. Formally through the FS now because
 6 we would have to redo what has already been done
 7 because our -- we're basically changing the whole
 8 scope of things, and then also go through the
 9 proposed plan and public comment, we think that that
 10 might take longer than a year and four months. If
 11 not, if CH2MHILL thinks they can get this done in
 12 that amount of time, you're right, I think that's
 13 fine. I think that the goal is not here to -- is
 14 not to get around the public involvement process or
 15 using the stakeholders. I think we're getting
 16 everybody's input into it. But it's more the matter
 17 do I really need a formal FS versus can I get it
 18 through the EE/CA and then to the FS afterwards.
 19 Just for formality's sake.
 20 RIPPERDA: yeah.
 21 ZUROMSKI: That's the whole thing. It's not to
 22 get around anything because we know that we're going
 23 to have to do public meetings. And this is going to
 24 be -- it's just that if we have to do the FS, the
 25 proposed plan, the public meetings and the ROD, can

86

1 we do that in a year and four months versus can we
 2 can an EE/CA, do the public involvement, get it into
 3 place, then worry about doing -- you know, giving
 4 you the FS, doing the review cycle.
 5 Because as I've seen through what Foster
 6 Wheeler's done here in the past, the review cycles
 7 are not 30 days for an FS that's that thick. And so
 8 every two months for every draft, draft-final, we
 9 just think that it would push it out further than
 10 the time we need to get in place to contain the
 11 plume. And so that judgment will be made based on
 12 what our contractor thinks he can do. And if he
 13 thinks he can do all the formal stuff, then that's
 14 fine.
 15 ROBLES: We're hoping that our modeling will
 16 tell us that, okay, you have so many months.
 17 ZUROMSKI: Right.
 18 ROBLES: -- before the other one starts going
 19 off line.
 20 ZUROMSKI: Right.
 21 ROBLES: That's a big issue. We have an
 22 indication that that may be. That's why we're
 23 looking at '02 as the major issue of why we want to
 24 put something in place because we feel that's the
 25 time. But if CH2MHILL feel it's going to be

87

1 faster --
 2 ZUROMSKI: Right.
 3 ROBLES: -- we got a removal action.
 4 ZUROMSKI: We just want to avoid impacting --
 5 ROBLES: That's our big driver. It's not to get
 6 around endangered species.
 7 RIPPERDA: I know. I agree. Time, I would
 8 rather see something sooner rather than later. You
 9 already have an FS, and all you really need to do is
 10 take the results of your different modeling runs
 11 with different injection and production scenarios.
 12 You know, most of the FS is there.
 13 ZUROMSKI: Uh-huh. Uh-huh.
 14 RIPPERDA: You'd have to rewrite the whole water
 15 treatment system --
 16 ZUROMSKI: Uh-huh.
 17 RIPPERDA: -- and you'd have to add in your new
 18 modeling runs.
 19 ZUROMSKI: Uh-huh.
 20 RIPPERDA: But it may not be as slow as you
 21 think. But if it is as slow, fine, do the EE/CA and
 22 removal action.
 23 ZUROMSKI: Would it be possible, since we do
 24 have a draft FS that's already been through the
 25 comment period, to take what CH2MHILL comes up with,

88

1 take the comments that we've seen from the agencies
 2 and turn it into a draft-final?
 3 See, because what we were thinking is that
 4 there's so much -- there may be so many changes that
 5 this draft-final is going to be like a new draft.
 6 And -- but if we can do is turn what we have as a
 7 draft into a draft-final with all this new
 8 information and go through only one more review
 9 cycle, it would be a lot more feasible than to go
 10 through two more steps. That's what we were
 11 envisioning, having to go through draft, draft final
 12 again, because if that was the case, then maybe it
 13 might take longer. And so using the EE/CA as a
 14 replacement for that, it's a one-shot deal --
 15 RIPPERDA: Right.
 16 ZUROMSKI: -- rather than a two-shot deal.
 17 RIPPERDA: In which case I might rather have an
 18 EE/CA because --
 19 ZUROMSKI: (UNINTELLIGIBLE)
 20 RIPPERDA: -- we can basically let the removal
 21 action happen and then if we have disagreements on
 22 your placement of injection --
 23 ROBLES: We can move it later.
 24 RIPPERDA: -- and all that, then in the final
 25 ROD, we can fight about whether your system is

89

1 sufficient or not.
 2 ZUROMSKI: We're not going to fight about it.
 3 RIPPERDA: So, no, I would not be happy getting
 4 a brand new modeling report and calling it
 5 draft-final where we have no chance to comment.
 6 ROBLES: Right. Right.
 7 ZUROMSKI: Right. That's what I was thinking,
 8 too. We'd really want to go through the FS, through
 9 a draft, draft-final again. And so that was one of
 10 the reasons why we were thinking we might not have
 11 time to do two steps versus a one step, but --
 12 But we will have CH2MHILL tell us what
 13 they can and cannot do.
 14 RIPPERDA: The whole endangered species
 15 determination would mostly impact infiltration --
 16 ZUROMSKI: Right
 17 RIPPERDA: -- that's not injection?
 18 ZUROMSKI: Right.
 19 RIPPERDA: It doesn't really matter to having an
 20 injection well where you're adding tanks.
 21 DAVOL: Unless you have to build a new well.
 22 ROBLES: That's where the key issue. And also
 23 is the Arroyo Well. The area of the Arroyo Well,
 24 that portion, and it depends on what Fish and
 25 Wildlife say are disturb areas are still considered

90

1 critical habitat. We're hoping that's not the case.
 2 No, we're not trying to get around the
 3 endangered species. But the key is, I've worked at
 4 a site where endangered species became the
 5 contention. We agreed on the technology, we agreed
 6 on the remediation, agreeing on how to address the
 7 endangered species issue was what we got
 8 (UNINTELLIGIBLE) on. I don't want to go into that
 9 again. That's -- it's terrible because you never
 10 win. The critters always win out.
 11 RIPPERDA: No, not always. Ultimately they do,
 12 but this approach you take --
 13 I've worked with a lot of endangered
 14 species issues, and, you know, Fish and Wildlife's
 15 goal is to protect the species. But, you know, they
 16 recognize the big picture. You know, kind of the
 17 difference between infiltration beds, which may take
 18 up a lot of surface area, a lot of habitat,
 19 versus --
 20 ROBLES: Injection.
 21 RIPPERDA: -- a well with a pad and a tank which
 22 is in the habitat area but doesn't completely
 23 overwhelm the habitat.
 24 ROBLES: That's why we're leaning to the Beiner
 25 site as an old treatment plan that's not been used.

91

1 It's perfect for us to be able to use, so we don't
 2 want to disturb a big footprint. We just put a well
 3 down there, the Arroyo Well location and pump it up
 4 to the Beiner site and we treat the system. So we
 5 minimize the impact to any undisturbed areas on the
 6 Arroyo Seco. So that's what we're looking at.
 7 Okay.
 8 Hopefully, if we can get an answer from
 9 CH2MHILL, on which way to go, we will contact you on
 10 our monthly telecon so at least we can see that.
 11 ZUROMSKI: I would say -- I mean maybe we should
 12 go through and make sure there's no more issues.
 13 But I would say that probably by the first
 14 February telecon, which would be the first Thursday
 15 of February, we would have a lot of information to
 16 discuss. And then by the next RPM meeting they
 17 should have a good concept, the model and a lot of
 18 this information ready to discuss on a preliminary
 19 basis.
 20 RIPPERDA: Your deliverables from them should
 21 include a modeling report for the regulators.
 22 ZUROMSKI: Yes.
 23 RIPPERDA: So we can see, you know, both the
 24 model matching and the history matching and all that
 25 as well as, you know, the variety of runs they did

92

1 for rates and locations --
 2 ROBLES: Okay.
 3 ZUROMSKI: Yes.
 4 RIPPERDA: -- before we get it in an EE/CA.
 5 ROBLES: That's true.
 6 Okay. If there's nothing on 6 or 7 items,
 7 then we can go to any other issues.
 8 I talked about all my Other Items.
 9 Are there any that the RPMs have or
 10 anybody have any issues they want to discuss?
 11 RIPPERDA: What's the status of litigation?
 12 BURIL: It's still there.
 13 RIPPERDA: Okay.
 14 ROBLES: Yeah. It's still there and we are --
 15 RIPPERDA: The video (UNINTELLIGIBLE) DLJ
 16 attorney stopped calling me, so I assumed that
 17 something favorable may have happened for NASA.
 18 ROBLES: Well, it was --
 19 ZUROMSKI: She calls me now.
 20 ROBLES: Well, the key is, it's still being
 21 worked out at the issues. So it's still in
 22 litigation. We can't talk about it. But it's being
 23 done at section.
 24 RIPPERDA: Okay.
 25 ROBLES: That's it. That's all we can say. I

93

1 don't know any more about it either because they
 2 stopped calling me. So I'm not sure of what the
 3 process is as well.
 4 RIPPERDA: Your agreement with --
 5 ROBLES: Lincoln Avenue?
 6 RIPPERDA: -- Lincoln Avenue is going fine?
 7 ROBLES: Yes.
 8 RIPPERDA: They're happy?
 9 ROBLES: Yes. They're happy so far.
 10 BURIL: You can find out how happy they are soon
 11 enough. They have reached their \$100,000 cap
 12 within the agreement as of the third quarter of this
 13 year. So they're going to be faced with no
 14 reimbursement for the fourth quarter by the terms of
 15 the agreement that they agreed to.
 16 RIPPERDA: I guess that answers my question.
 17 They're about to be not happy. Okay.
 18 ROBLES: The thing is, it was negotiated that we
 19 would cap our reimbursement to them for operating
 20 costs at 100,000. And we asked them, you know, make
 21 a determination. We felt that that was reasonable.
 22 They've gone over it. That's going to be a big
 23 issue. I know that's going to come back to us.
 24 We'll have to -- I'm waiting for the phone call.
 25 RIPPERDA: So do they submit their operating

94

1 costs and you review it?
 2 BURIL: They have operating costs submitted on a
 3 quarterly basis. I just received the third quarter
 4 about two weeks ago. And the previous two quarters
 5 and the third quarter, sum together, exceed \$100,000
 6 cap agreed to within the settlement agreement. So
 7 they are going to be -- when they receive partial
 8 payment for the third quarter and none at all for
 9 the fourth.
 10 ROBLES: So we'll see. Hopefully you wouldn't
 11 get the call, I will. But I can't make any
 12 promises, Mark.
 13 RIPPERDA: Yeah. He stopped calling me months
 14 ago, so everybody was happy.
 15 ZUROMSKI: For the moment at least.
 16 ROBLES: And that's all we have as such.
 17 Mr. Atwater couldn't attend here from the
 18 Raymond Basin, but he wanted to be informed of the
 19 agenda. We're still working with him on that and we
 20 will be briefing the Raymond Basin at the next --
 21 ZUROMSKI: We go to their -- I go to their
 22 meetings. The last one, actually, was back in
 23 October, I believe. The same day -- it was the same
 24 day as the perchlorate meeting down in Azusa. And
 25 they gave us -- we had -- prior to that meeting we

95

1 had met with them to get their approval to extract
 2 water. And all they asked from us is to submit to
 3 them a memo on a monthly basis of how much water
 4 we're extracting, which is minimal. And they gave
 5 us a -- for the two pilot tests they gave us a very,
 6 very large range that we can operate in, which we
 7 shouldn't come close to coming to half of what
 8 they've given us. But we briefed them on that as
 9 well. I'm not sure when the next meeting will be,
 10 but we'll be there.
 11 BURIL: December.
 12 ZUROMSKI: December.
 13 ROBLES: Are there any other items?
 14 Are you guys happy?
 15 RIPPERDA: I'm happy.
 16 GEBERT: I'm a happy camper, yeah.
 17 ROBLES: We're hoping that we're progressing to
 18 your satisfaction and keep the dialogue going. This
 19 next year is going to be really work intensive as we
 20 get going on that. Hopefully by next year this time
 21 we'll be ready to do something in OU 1 and 3.
 22 ZUROMSKI: Or hopefully we'll actually be doing
 23 something.
 24 ROBLES: Hopefully we'll actually be doing
 25 something.

96

1 ZUROMSKI: Or you'll see something getting built
 2 out there.
 3 ROBLES: So that's what we're shooting for on
 4 that.
 5 Otherwise, I don't have any other items
 6 except to look at if there are any other issues.
 7 ZUROMSKI: I was just going to ask one question
 8 from Alex. And I'm not sure -- you received
 9 Mark's -- I guess back in the pilot studies you guys
 10 received Mark's letter, I presume, after you sent us
 11 our letter. And is what we're doing so far -- I
 12 guess, is it in accordance with kind of what we all
 13 expected, or are we --
 14 CARLOS: Kind of what I expected. I haven't
 15 heard any comment from our permit people.
 16 ZUROMSKI: Okay. Because you'll have the
 17 final -- I mean, I've given you -- from what I've
 18 told you verbally today, that's what you're going to
 19 see in the report.
 20 CARLOS: They got a copy of Mark's letter.
 21 ZUROMSKI: Okay. I just want to make sure that
 22 we're not going something that you hadn't expected
 23 in some way or other.
 24 BURIL: I would appreciate it, as the normal
 25 compliance officer for the Laboratory, if you even

97

1 have the inkling that something may be --
 2 ZUROMSKI: Right.
 3 BURIL: -- less than what you would prefer to
 4 see --
 5 ZUROMSKI: Exactly.
 6 BURIL: -- that you notify me immediately
 7 because I do not want the Laboratory faced with some
 8 kind of notice of violation being issued under any
 9 kind of statute that comes under the purview of the
 10 Regional Board.
 11 ZUROMSKI: Right. And I think we talked about
 12 that in that -- when we first shut down the system
 13 back in October, we wanted to make sure that was not
 14 going to be an issue before we continued to operate.
 15 CARLOS: I don't think that was an issue. I
 16 mean, if they had an issue, they would raise it.
 17 ZUROMSKI: Okay. Because to this point the only
 18 issues that we're really having are with those two
 19 mineral constituents. So I just want to -- and I
 20 foresee it's going to be the same in the Foster
 21 Wheeler, probably, test, which is actually going to
 22 be shorter than the one we do with Foster Wheeler --
 23 or with U.S. Filter. But it will be -- it's the
 24 same issue because it's the same type of technology.
 25 So --

98

1 ROBLES: Okay. If nobody --
 2 RIPPERDA: One last. You guys had called me
 3 with a question of the indexing. I forget what it's
 4 called, but the RCRA inspection.
 5 BURIL: We have that understood now. We got the
 6 right people working on it.
 7 RIPPERDA: Because I couldn't find anything on
 8 you guys in it.
 9 BURIL: It's there. We found the right person.
 10 Her name is Kim Thompson, Region IX.
 11 ROBLES: I've left a message. Chuck has left a
 12 message.
 13 BURIL: I've spoken to her.
 14 ROBLES: Oh. Okay. Good.
 15 BURIL: She's working on it currently. So we
 16 have the right person now. It's going forward.
 17 ROBLES: We've been asked to clarify that. We
 18 were kind of shocked that something has been there
 19 so long.
 20 BURIL: Quickly, what it was was apparently some
 21 kind of a State finding back in 1987 that's still on
 22 the books. She is researching it now to try to find
 23 out just what that was. But neither the State nor
 24 EPA can figure it out right now.
 25 ROBLES: Which leads me to believe that it was

99

1 addressed but it was filed and never taken off the
 2 books. Usually a notice of violation that stays
 3 that long just doesn't stay in limbo. Something has
 4 to be done. So it was amazing to us.
 5 BURIL: Shocking is a better word.
 6 ZUROMSKI: I have one more -- one more Other
 7 Issue. And this goes to Richard.
 8 What is the -- what are the results of the
 9 survey you're doing of sources, upgradient sources?
 10 Because I know that CH2MHILL is going to be
 11 interested in that in their analysis. I know that
 12 we had talked about June of this year or next year
 13 or something. I don't know. I'm just wondering if
 14 you had an update on that.
 15 GEBERT: The last I heard they identified like
 16 eight potential dry cleaning facilities. These are
 17 all about a mile up on Foothill boulevard.
 18 ZUROMSKI: Uh-huh.
 19 GEBERT: And basically, nothing really has
 20 happened since then. We go through kind of an
 21 extensive screening process and then we work with
 22 one of the departments in EPA to do like a PASI,
 23 which takes a long time.
 24 ZUROMSKI: Right.
 25 GEBERT: As far as I know, nothing really has

100

1 happened.
 2 ZUROMSKI: Okay.
 3 GEBERT: There's no further information on it.
 4 We have a list of potential sources.
 5 ZUROMSKI: Is that information public? Or is
 6 that something we can access when CH2MHILL is doing
 7 their analysis for us?
 8 GEBERT: Sure. Sure. Oh, yeah. Exactly what
 9 those facilities are?
 10 ZUROMSKI: Or where the facilities are.
 11 GEBERT: Where they are? Sure. Oh, yeah.
 12 ZUROMSKI: Okay.
 13 GEBERT: They need that --
 14 ZUROMSKI: yeah, they'll need that.
 15 GEBERT: Tell them to give me a call.
 16 ZUROMSKI: Okay.
 17 BURIL: Do you have any idea when the reports
 18 would be available for review?
 19 GEBERT: No. As far as I know, they're not
 20 actively investigating.
 21 ZUROMSKI: Okay.
 22 GEBERT: What the timetable could be, I don't
 23 know that either.
 24 ZUROMSKI: Okay.
 25 ROBLES: Okay. If nobody has anything else,

101

1 let's talk about the next meeting. We were
 2 proposing for the next RPM meeting the second
 3 Thursday of March, which is the 8th. There's the
 4 1st of March, which is the first Thursday. But
 5 we're talking about the 8th of March.
 6 ZUROMSKI: Right. We're also thinking maybe the
 7 1st of March or somewhere around there may actually
 8 be the time we would discuss the public meetings.
 9 So there may be two meetings in that short time
 10 frame.
 11 HEATH: A calendar I just happen to have.
 12 ROBLES: The 1st is right here.
 13 RIPPERDA: So that would be a month before the
 14 public meeting, so we'd --
 15 ZUROMSKI: Well, we'd probably have another --
 16 RIPPERDA: -- have a dry run.
 17 ZUROMSKI: Right. Either before, a week before
 18 or a week after that. So we'd probably have two
 19 meetings like within a week of each other, one for
 20 the official RPM meeting and one for the dry run.
 21 ROBLES: What I would recommend is that on the
 22 11th of January, which is the second Thursday of
 23 January, that we have a telecon, at which time we
 24 can plan for a working meeting for the public
 25 meetings between that time and the next RPM meeting,

102

1 I believe. But we need to have a working group
 2 meeting just for the -- whether it's by telecon or
 3 whether we meet together or so on, so that we can
 4 see -- because we got to coordinate Von Karman on
 5 that issue as well, the auditorium. And, then, that
 6 way we have a telecon on the 11th of January and
 7 anticipating March 8th as our RPM meeting.
 8 ZUROMSKI: And let's have one in February, too,
 9 I think. We'll have another telecon.
 10 ROBLES: Right. And the other telecon would be
 11 the 8th of February, which is also the second
 12 Thursday of February as well.
 13 ZUROMSKI: When was the January one again?
 14 11th?
 15 ROBLES: 11th. Each of these are the second
 16 Thursdays of each of the months. The 11th of
 17 January, the 8th of February and the 8th of March.
 18 Does anybody have any --
 19 CARLOS: My calendar is open.
 20 ZUROMSKI: Alex might not be here by then.
 21 RIPPERDA: That sounds fine. Somewhat
 22 selfishly, I kind of prefer to have the RPM meeting
 23 and the pre-public meeting back-to-back days rather
 24 than subsequent weeks.
 25 ZUROMSKI: Okay. We can do that.

103

Side 27

1 RIPPERDA: Just to save flying down here two
 2 weeks in a row.
 3 ZUROMSKI: Uh-huh. Sure.
 4 ROBLES: Okay.
 5 RIPPERDA: So like on a Thursday-Friday, or
 6 Wednesday-Thursday
 7 ROBLES: So you want it to coincide --
 8 ZUROMSKI: Like the 7th and the 8th or something
 9 like that.
 10 ROBLES: Let's --
 11 ZUROMSKI: We'll talk about that.
 12 ROBLES: We'll talk about that and let you know
 13 on the 11th. That would be a perfect time --
 14 ZUROMSKI: Yeah. We'll tell you in January.
 15 That's the January 11th meeting.
 16 ROBLES: -- if that's possible.
 17 RIPPERDA: Given how fast our RPM meetings have
 18 been going --
 19 ZUROMSKI: Yeah. We could --
 20 RIPPERDA: -- we could even do it in possibly --
 21 it depends on, you know, your --
 22 ZUROMSKI: The only thing I see is that there's
 23 going to a lot of presentation probably of modeling
 24 results. There's probably going to be some type of
 25 preliminary analysis of what's good, what's bad,

104

1 what's going to happen, what's not going to happen.
 2 So just foreseeing that being more than a
 3 regular two, two and a half hour meeting, being
 4 maybe a half day. That's the only reason why we
 5 were thinking of having two days. But you're right.
 6 If we could get out of here by noon, come back after
 7 lunch with the other one, theoretically we could do
 8 them the same day. Maybe we could plan it that way
 9 and if necessary spill into the next day. So --
 10 BURIL: May I suggest that in the past we
 11 planned for two days with the understanding that if
 12 it falls over into --
 13 ZUROMSKI: Exactly.
 14 BURIL: -- the second day, fine --
 15 ZUROMSKI: Exactly.
 16 BURIL: -- otherwise, if you're done at the end
 17 of the first day --
 18 ZUROMSKI: We're done.
 19 BURIL: -- everybody goes home early.
 20 ZUROMSKI: Exactly. I think that's fine.
 21 ROBLES: So would you rather that the 8th of
 22 March be the whole thing?
 23 RIPPERDA: No. I would rather plan just like
 24 Chuck said. Plan for two days.
 25 ZUROMSKI: 8th and 9th, yeah.

105

Pages 102 - 105

1 DAVOL: 7th and 8th.
 2 ZUROMSKI: 7th and 8th, right.
 3 RIPPERDA: It would be better if we happen to
 4 get done early. But, you know, rather than planning
 5 for the 8th and the 15th --
 6 ZUROMSKI: Okay.
 7 RIPPERDA: -- I'd rather plan for the 8th and
 8 9th.
 9 ZUROMSKI: Sure.
 10 ROBLES: Okay.
 11 ZUROMSKI: Okay.
 12 ROBLES: I see what you're saying.
 13 ZUROMSKI: Is -- I don't know, traveling Fridays
 14 for you -- would you rather do it Wednesday-Thursday
 15 than Thursday-Friday? Any preference?
 16 GEBERT: It makes no difference to me.
 17 RIPPERDA: I have no preference.
 18 BURIL: Me either.
 19 ZUROMSKI: That's fine. How about we'll just
 20 shoot for the 8th at this point, and whether it's
 21 the 7th and 8th or 8th and 9th, Peter and I, we'll
 22 discuss it with our contractor and we'll talk about
 23 it on the other --
 24 ROBLES: We will get on the telecon on the
 25 11th --

106

1 ZUROMSKI: Right.
 2 ROBLES: -- of January to let you know so we can
 3 finalize that.
 4 RIPPERDA: And as long as that's also okay with
 5 your contractor --
 6 ZUROMSKI: Oh, sure.
 7 RIPPERDA: -- if it's the same contractor doing
 8 both the groundwater modeling and the public meeting
 9 presentation.
 10 ROBLES: Hopefully.
 11 ZUROMSKI: They'll both be here. Because
 12 they'll both be --
 13 RIPPERDA: So they are different contractors.
 14 ZUROMSKI: Right.
 15 RIPPERDA: So, then, it won't matter to them at
 16 all.
 17 ROBLES: Right.
 18 ZUROMSKI: Right. It's probably in -- the two
 19 contractors, one, Battelle, who's working on OU 2
 20 stuff and one CH2MHILL. As I said earlier in the
 21 meeting, we'll probably be -- at some point in time
 22 will be the two contractors that we'll be dealing
 23 with on a --
 24 ROBLES: Permanent basis.
 25 ZUROMSKI: --just permanent basis, whereas right

107

1 now the other ones are there because of the way
 2 we've been receiving the work from Cal Tech. But --
 3 So they'll probably be good at that point because
 4 they'll be able to present a lot of this information
 5 to you.
 6 RIPPERDA: I think it would be good for Battelle
 7 to be here for any groundwater modeling stuff --
 8 ZUROMSKI: Right.
 9 RIPPERDA: -- just to hear it.
 10 ZUROMSKI: I think so.
 11 RIPPERDA: -- because if they're going to go to
 12 a public meeting a month from then they can't speak
 13 for groundwater issues. At least if they know
 14 something about it they don't sound like idiots when
 15 the public ask some general questions.
 16 ROBLES: God forbid.
 17 ZUROMSKI: Okay.
 18 Any other final comments before we --
 19 okay. Thank you.
 20 ROBLES: That's all I have. So we can call the
 21 meeting adjourned. With no exceptions, the meeting
 22 is adjourned.
 23 Thank you very much.
 24 (The proceedings adjourned at 11:28 A.M.)
 25

108

=====	=====	ABSOLUTELY [1] 62:8;	103:20;	ASYMTOTIC [1] 30:14;
- NUMBERS	=====	ABSORB [1] 52:24;	ALIVE [3] 52:20; 54:9; 54:13;	ATTEND [1] 95:17;
=====	=====	ACCEPT [2] 26:1; 26:2;	ALLOW [1] 19:11;	ATTENDEES [1] 1:6;
\$100,000 [2] 94:11; 95:5;		ACCESS [1] 101:6;	ALLOWS [1] 83:8;	ATTORNEY [3] 10:1; 70:24; 93:16;
'02 [2] 77:4; 87:23;		ACCORDANCE [1] 97:12;	ALMOST [1] 21:16;	ATWATER [1] 95:17;
'NOTHER [1] 63:9;		ACCORDING [3] 29:5; 54:24;	ALONG [4] 5:19; 5:21; 41:18;	AUDITORIUM [1] 103:5;
'OH [1] 57:3;		77:11;	64:20;	AUGUST [1] 20:7;
100 [1] 36:20;		ACCOUNT [1] 52:23;	ALTERNATIVES [3] 56:2; 65:5;	AUTOMATICALLY [1] 11:5;
100,000 [1] 94:20;		ACE [1] 61:8;	69:18;	AVAILABLE [3] 31:25; 32:3;
10:00 [2] 18:3; 19:18;		ACHIEVING [1] 47:10;	ALWAYS [5] 26:12; 60:1; 85:17;	101:18;
11:28 [1] 108:24;		ACT [1] 50:1;	91:10; 91:11;	AVENUE [4] 15:11; 19:10; 94:5;
11TH [8] 102:22; 103:6; 103:14;		ACTION [15] 36:2; 69:25; 70:11;	AMAZING [1] 100:4;	94:6;
103:15; 103:16; 104:13; 104:15;		77:15; 77:20; 78:7; 83:7; 84:8;	AMBIGUOUSLY [1] 58:13;	AVOID [2] 60:11; 88:4;
106:25;		84:23; 85:11; 85:13; 85:22; 88:3;	AMENABLE [1] 16:4;	AWARDED [1] 9:1;
13TH [1] 13:13;		88:22; 89:21;	AMOUNT [4] 47:15; 55:7; 78:14;	AWARE [2] 36:7; 36:8;
14TH [1] 13:13;		ACTIONS [1] 85:18;	86:12;	AWAY [1] 17:5;
14TH-15TH [1] 13:19;		ACTIVELY [1] 101:20;	ANALYSIS [10] 5:1; 33:16;	AZUSA [1] 95:24;
15TH [1] 106:5;		ACTIVITIES [1] 28:17;	34:22; 68:13; 69:18; 70:3; 76:1;	=====
18TH [1] 60:7;		ACTIVITY [1] 73:7;	100:11; 101:7; 104:25;	- B -
1987 [1] 99:21;		ACTUAL [2] 32:4; 70:3;	ANALYZE [3] 10:7; 46:2; 75:14;	=====
19TH [2] 29:7; 29:15;		ACTUALLY [25] 9:14; 12:13;	ANALYZING [4] 3:5; 42:22;	B [1] 30:3;
1ST [5] 12:22; 20:9; 102:4; 102:7;		17:15; 23:7; 29:11; 29:13; 36:3;	43:3; 69:6;	BACK [32] 6:25; 15:16; 19:8;
102:12;		36:18; 37:13; 42:1; 45:9; 48:17;	ANCILLARY [1] 84:8;	20:13; 20:25; 30:10; 30:17; 30:18;
200 [1] 54:10;		57:7; 60:23; 61:1; 61:2; 63:15;	ANSWERS [2] 78:2; 94:16;	39:15; 40:10; 44:13; 47:13; 48:15;
200-FOOT [1] 64:3;		63:16; 77:3; 78:7; 95:22; 96:22;	ANTICIPATING [1] 103:7;	49:16; 49:24; 50:12; 50:15; 51:5;
2000 [2] 1:4; 2:2;		96:24; 98:21; 102:7;	ANYBODY [5] 3:25; 20:12;	52:10; 52:11; 52:15; 56:19; 57:5;
20TH [1] 3:21;		ADD [5] 15:18; 35:24; 61:19;	60:10; 93:10; 103:18;	65:2; 72:16; 72:18; 94:23; 95:22;
22 [2] 50:20; 60:1;		67:4; 88:17;	ANYMORE [2] 53:23; 73:4;	97:9; 98:13; 99:21; 105:6;
25 [2] 49:15; 49:17;		ADDING [6] 24:6; 46:6; 49:14;	ANYWAY [4] 6:25; 24:23; 52:1;	BACK-TO-BACK [1] 103:23;
25.7 [1] 49:17;		53:9; 74:22; 90:20;	55:3;	BACTERIA [6] 48:7; 61:9; 61:14;
250 [2] 51:19; 54:1;		ADDITION [2] 17:10; 22:4;	ANYWHERE [2] 54:1; 67:12;	61:17; 63:2; 63:5;
2818 [1] 1:25;		ADDITIONAL [5] 24:6; 24:7;	APPARENTLY [1] 99:20;	BAD [1] 104:25;
2:00 [4] 19:18; 19:23; 19:24; 19:25;		28:1; 28:2; 34:11;	APPEARED [1] 32:6;	BAG [2] 48:22; 48:23;
2ND [4] 11:21; 11:25; 12:7; 12:21;		ADDRESS [4] 14:2; 15:16; 15:20;	APPLY [1] 29:24;	BANG [1] 39:11;
30 [4] 12:24; 14:10; 75:25; 87:7;		91:6;	APPRECIATE [1] 97:24;	BARRIER [1] 63:16;
30-DAY [3] 12:1; 12:20; 14:8;		ADDRESSED [1] 100:1;	APPROACH [2] 41:17; 91:12;	BASE [2] 61:24; 68:12;
300 [2] 54:1; 54:10;		ADDRESSING [1] 21:17;	APPROVAL [1] 96:1;	BASED [28] 14:8; 20:4; 20:6;
3D [1] 68:10;		ADEQUATE [1] 27:17;	APPROVE [2] 42:9; 71:18;	22:17; 23:17; 30:23; 32:16; 33:1;
44 [4] 49:23; 49:24; 50:11; 50:12;		ADJOURNED [3] 108:21;	APRIL [5] 13:13; 13:13; 13:19;	33:24; 37:18; 41:20; 42:19; 42:21;
52 [1] 73:1;		108:22; 108:24;	13:19; 77:12;	42:24; 42:24; 43:20; 46:5; 49:10;
60 [1] 75:25;		ADJUDICATED [1] 26:19;	AQUIFER [1] 82:21;	51:7; 55:7; 57:8; 57:14; 60:16;
6TH [2] 13:12; 13:18;		ADJUDICATION [1] 74:16;	AREA [7] 3:17; 17:22; 66:7; 85:3;	61:11; 68:7; 68:12; 72:22; 87:11;
6TH-7TH [1] 13:18;		ADMINISTRATIVE [4] 3:1; 3:2;	90:23; 91:18; 91:22;	BASIC [1] 71:16;
700 [2] 49:19; 54:10;		3:24; 7:22;	AREAS [3] 7:7; 90:25; 92:5;	BASICALLY [42] 3:18; 3:22;
750 [1] 54:2;		AERATION [1] 48:15;	ARISE [2] 28:1; 69:6;	5:12; 7:4; 10:6; 11:12; 14:14; 18:6;
7TH [7] 13:12; 75:17; 80:7; 104:8;		AEROJET [2] 62:1; 62:14;	AROUND [23] 2:5; 5:5; 5:5; 5:7;	23:10; 40:4; 41:16; 43:3; 47:6;
106:1; 106:2; 106:21;		AFFAIRS [3] 19:6; 20:15; 20:16;	9:15; 11:11; 15:22; 37:4; 37:18;	47:18; 48:3; 48:12; 49:2; 49:13;
800 [1] 54:3;		AFFECTED [1] 39:8;	38:15; 42:3; 49:15; 49:23; 68:25;	50:11; 50:20; 51:3; 51:8; 54:9;
800-FOOT [1] 64:6;		AFTERWARDS [1] 86:18;	75:2; 75:15; 75:25; 85:23; 86:14;	55:3; 55:8; 55:20; 60:7; 61:4;
8TH [16] 102:3; 102:5; 103:7;		AGENCIES [4] 31:25; 42:1;	86:22; 88:6; 91:2; 102:7;	61:18; 62:5; 63:18; 63:24; 64:21;
103:11; 103:17; 103:17; 104:8;		44:18; 89:1;	ARROYO [15] 67:8; 68:24; 71:6;	68:3; 69:17; 70:6; 79:16; 79:18;
105:21; 105:25; 106:1; 106:2;		AGENCY [1] 20:13;	72:8; 72:11; 75:11; 81:16; 81:20;	84:4; 86:7; 89:20; 100:19;
106:5; 106:7; 106:20; 106:21;		AGENDA [3] 2:18; 7:20; 95:19;	84:9; 84:12; 85:4; 90:23; 90:23;	BASIN [13] 15:9; 16:14; 26:17;
106:21;		AGO [7] 25:19; 44:18; 49:8; 51:6;	92:3; 92:6;	49:10; 51:10; 51:21; 56:1; 58:9;
97 [1] 68:21;		72:1; 95:4; 95:14;	ASK [14] 15:9; 15:17; 16:1; 17:4;	58:9; 74:15; 74:23; 95:18; 95:20;
97-005 [2] 68:21; 69:12;		AGREE [4] 34:19; 41:7; 45:8; 88:7;	17:15; 17:23; 21:13; 22:21; 32:19;	BASIS [8] 34:20; 37:17; 43:22;
9:37 [1] 2:3;		AGREEABLE [1] 16:25;	68:5; 80:5; 81:17; 97:7; 108:15;	92:19; 95:3; 96:3; 107:24; 107:25;
9TH [3] 105:25; 106:8; 106:21;		AGREED [5] 45:11; 91:5; 91:5;	ASKED [5] 69:10; 71:7; 94:20;	BATTELLE [10] 4:19; 9:2; 9:3;
=====		94:15; 95:6;	96:2; 99:17;	9:4; 9:5; 9:22; 10:18; 10:22;
- A -		AGREEING [1] 91:6;	ASKING [5] 9:22; 12:20; 21:22;	107:19; 108:6;
=====		AGREEMENT [10] 76:6; 76:10;	23:15; 36:18;	BECAME [1] 91:4;
A.M [2] 2:3; 108:24;		76:13; 81:1; 81:3; 81:13; 94:4;	ASKS [1] 18:7;	BECOME [1] 70:6;
ABILITY [2] 62:18; 66:19;		94:12; 94:15; 95:6;	ASSESSING [2] 3:4; 3:5;	BECOMES [1] 58:25;
ABLE [15] 8:16; 19:21; 24:13;		AGREEMENTS [1] 74:3;	ASSESSMENT [1] 69:21;	BED [18] 46:20; 47:21; 48:2; 48:5;
28:18; 39:4; 43:19; 43:25; 52:19;		AHEAD [1] 54:23;	ASSIST [1] 68:22;	48:18; 50:25; 53:2; 53:14; 53:22;
53:8; 65:8; 67:7; 74:9; 83:22; 92:1;		AID [2] 36:6; 36:6;	ASSISTING [1] 75:3;	53:22; 58:19; 60:14; 60:19; 60:25;
108:4;		AIDED [1] 34:12;	ASSUMED [1] 93:16;	61:5; 61:21; 62:6; 62:7;
ABOVE [1] 81:6;		ALEX [5] 1:8; 2:15; 46:25; 97:8;	ASSUMPTION [2] 72:3; 81:19;	BEDS [3] 49:5; 49:6; 91:17;

BEGIN [2] 12:21; 33:11; BEGINNING [4] 6:21; 22:19; 77:12; 77:25; BEINER [3] 71:8; 91:24; 92:4; BEING [10] 7:8; 32:7; 53:4; 59:24; 84:11; 93:20; 93:22; 98:8; 105:2; 105:3; BELIEVE [9] 12:22; 31:10; 35:3; 44:5; 76:23; 81:21; 95:23; 99:25; 103:1; BELIEVING [1] 21:10; BELOW [1] 51:18; BENCH [1] 62:20; BENEFIT [4] 33:2; 34:23; 50:23; 65:13; BEST [5] 10:3; 15:25; 17:14; 21:12; 46:3; BETTER [6] 20:1; 46:5; 46:7; 50:12; 100:5; 106:3; BETWEEN [5] 43:9; 48:22; 54:16; 91:17; 102:25; BEYOND [1] 81:7; BIG [12] 4:22; 21:13; 52:9; 59:1; 69:14; 80:9; 81:13; 87:21; 88:5; 91:16; 92:2; 94:22; BIGGEST [1] 85:17; BINDERS [1] 35:9; BIOFILM [2] 48:6; 52:12; BIOLOGICAL [3] 53:25; 60:20; 61:6; BIOMASS [1] 61:18; BIOSOLIDS [2] 48:24; 48:25; BIT [10] 4:11; 17:22; 20:1; 23:17; 36:19; 49:20; 55:6; 61:1; 65:23; 81:9; BOARD [17] 2:15; 4:12; 8:25; 16:7; 16:7; 16:18; 23:4; 47:7; 49:10; 56:18; 58:1; 58:13; 59:7; 64:9; 65:24; 65:25; 98:10; BOOKS [2] 99:22; 100:2; BOOTH [5] 15:4; 15:10; 16:4; 16:7; 17:20; BOOTHES [3] 14:24; 15:1; 15:12; BORE [2] 27:7; 27:11; BORES [1] 27:12; BOTH [6] 19:19; 76:13; 92:23; 107:8; 107:11; 107:12; BOTTOM [2] 48:4; 82:17; BOULEVARD [1] 100:17; BOXES [1] 32:10; BRAND [1] 90:4; BREAK [1] 29:4; BRIEFED [1] 96:8; BRIEFING [2] 58:15; 95:20; BRING [5] 62:12; 72:16; 73:13; 75:21; 84:18; BRINGING [1] 19:5; BROUGHT [2] 23:4; 50:15; BUCK [1] 39:11; BUG [1] 62:25; BUGS [6] 47:15; 48:9; 52:17; 52:20; 54:9; 54:12; BUILD [1] 90:21; BUILT [1] 97:1; BULK [1] 82:15; BULLET [3] 58:22; 59:13; 65:15; BULLETS [2] 65:16; 65:17; BURIL [90] 1:7; 8:5; 11:18; 15:6; 21:10; 31:20; 31:24; 32:3; 32:6; 33:7; 33:12; 34:5; 34:10; 34:14; 34:20; 35:2; 35:17; 38:19; 38:21; 39:2; 39:8; 39:17; 39:21; 41:9; 41:15; 41:22; 41:25; 42:13; 42:17; 43:6; 43:17; 44:4; 44:13; 44:16; 44:22; 45:4; 45:10; 45:19; 46:1; 46:16; 47:25; 48:22; 52:4; 52:8; 52:23; 53:1; 53:4; 53:6; 53:8; 54:14; 54:19; 54:23; 59:5; 59:15; 59:22; 59:25; 60:2; 61:24; 62:4; 62:8; 62:12; 62:17; 63:22; 64:6; 65:18; 67:18; 67:23; 68:5; 68:9; 76:8; 85:7; 93:12; 94:10; 95:2; 96:11; 97:24; 98:3; 98:6; 99:5; 99:9; 99:13; 99:15; 99:20; 100:5; 101:17; 105:10; 105:14; 105:16; 105:19; 106:18; BYPRODUCT [1] 56:19; BYPRODUCTS [3] 56:8; 56:12; 56:13; =====	- C - =====	C [2] 1:12; 30:3; CAL [9] 3:2; 7:5; 7:11; 7:23; 8:9; 15:3; 15:6; 15:7; 108:2; CALENDAR [2] 102:11; 103:19; CALGON [3] 57:9; 59:18; 60:3; CALIFORNIA [1] 2:1; CALL [10] 10:10; 12:14; 22:21; 69:20; 79:5; 79:24; 94:24; 95:11; 101:15; 108:20; CALLED [3] 46:23; 99:2; 99:4; CALLING [9] 9:6; 12:10; 28:25; 30:1; 30:2; 90:4; 93:16; 94:2; 95:13; CALLS [1] 93:19; CAME [6] 9:12; 9:16; 31:21; 47:16; 56:4; 84:10; CAMERAS [1] 21:22; CAMPER [1] 96:16; CANNOT [1] 90:13; CAP [3] 94:11; 94:19; 95:6; CAPITAL [1] 25:10; CAPITALIZE [3] 30:25; 63:25; 78:16; CAPITALIZING [2] 78:15; 78:18; CARBON [8] 48:6; 48:16; 53:4; 53:13; 53:14; 53:16; 53:22; 53:23; CARE [6] 22:10; 40:21; 43:21; 47:19; 59:16; 59:20; CARLOS [12] 1:8; 2:15; 17:9; 20:17; 33:3; 33:9; 44:2; 59:6; 97:14; 97:20; 98:15; 103:19; CAROLS [1] 2:15; CASE [5] 50:2; 83:14; 89:12; 89:17; 91:1; CATCH [2] 50:20; 60:1; CDS [1] 3:11; CENTER [2] 2:8; 6:14; CEQ [1] 11:12; CERCLA [8] 9:17; 10:11; 10:11; 10:14; 11:13; 11:15; 73:18; 83:6; CERTAIN [7] 7:6; 18:1; 18:13; 21:14; 30:9; 30:14; 82:16; CERTAINLY [4] 35:20; 36:16; 39:17; 41:25; CH2 [1] 82:6; CH2MHILL [20] 4:24; 8:25; 10:22; 55:19; 63:13; 64:9; 64:19; 65:22; 66:16; 70:15; 77:6; 78:12; 86:11; 87:25; 88:25; 90:12; 92:9; 100:10; 101:6; 107:20; CHANCE [5] 25:23; 42:9; 45:17; 85:20; 90:5; CHANGE [11] 25:18; 26:14; 26:24; 35:24; 39:14; 39:14; 41:18; 42:2; 42:8; 45:14; 50:13; CHANGED [1] 25:19; CHANGES [15] 15:20; 26:1; 26:2; 26:21; 35:21; 38:23; 39:8; 39:9; 39:10; 39:25; 40:11; 40:11; 45:7; 76:12; 89:4; CHANGING [2] 50:14; 86:7; CHARLES [1] 1:7; CHART [4] 9:14; 9:23; 10:7; 10:9; CHECK [4] 35:2; 35:4; 44:4; 44:6; CHEMICAL [1] 56:8; CHLORATE [1] 57:23; CHLORIDE [14] 49:8; 49:15; 49:20; 50:16; 50:18; 50:22; 51:3; 51:9; 51:17; 55:16; 57:14; 58:18; 59:17; 59:24; CHRISTMAS [4] 12:4; 29:2; 60:6; 60:10; CHUCK [7] 6:18; 8:5; 30:11; 31:14; 76:7; 99:11; 105:24; CHUCK'S [4] 36:1; 36:5; 37:11; 40:5; CITY [15] 15:10; 16:14; 67:8; 68:22; 69:8; 70:23; 71:25; 74:14; 75:4; 76:9; 77:8; 78:25; 79:5; 79:17; 83:5; CLARIFY [3] 30:6; 30:13; 99:17; CLEAN [2] 58:22; 82:21; CLEANED [2] 65:1; 82:17; CLEANING [2] 74:24; 100:16; CLEAR [3] 30:18; 55:25; 56:4; CLOCK [3] 12:5; 12:7; 79:25; CLOSE [2] 72:12; 96:7; CLOSE-OUT [1] 34:6; CLOSED [2] 71:7; 72:11; CLOSELY [1] 72:7; CLOSING [1] 82:5; COCKINDALL [1] 59:4; COINCIDE [2] 44:7; 104:7; COLORADO [1] 74:20; COMBINATION [1] 64:25; COME [26] 8:6; 9:24; 13:14; 15:22; 18:21; 24:20; 25:17; 27:12; 34:20; 36:1; 42:23; 45:7; 46:5; 46:10; 51:7; 56:9; 58:2; 64:21; 69:5; 69:6; 69:13; 76:15; 81:2; 94:23; 96:7; 105:6; COMES [10] 10:7; 14:10; 18:7; 20:4; 26:13; 56:5; 72:19; 85:9; 88:25; 98:9; COMFORTABLE [2] 14:6; 19:12; COMING [9] 10:22; 24:11; 42:17; 47:4; 47:11; 49:15; 54:1; 54:4; 96:7; COMMENT [7] 9:11; 11:22; 71:16; 86:9; 88:25; 90:5; 97:15; COMMENTS [4] 26:18; 28:22; 89:1; 108:18; COMMITTING [1] 25:10; COMMON [1] 26:15; COMPARED [1] 54:21;	COMPENSATE [1] 71:11; COMPENSATION [3] 73:22; 74:4; 74:7; COMPLETE [4] 3:6; 3:18; 60:5; 65:7; COMPLETELY [1] 91:22; COMPLETION [1] 44:2; COMPLIANCE [1] 97:25; COMPONENTS [1] 60:22; CONCENTRATION [1] 49:5; CONCENTRATIONS [7] 39:5; 50:18; 52:8; 53:17; 54:7; 55:10; 82:15; CONCEPT [3] 48:1; 60:25; 92:17; CONCEPTUALLY [2] 80:10; 81:2; CONCERN [2] 81:8; 81:14; CONCERNED [2] 32:1; 83:10; CONCERNING [1] 33:9; CONCERNS [1] 14:20; CONCURRENTLY [1] 24:9; CONDITIONS [1] 43:16; CONFLICTS [1] 19:9; CONJUNCTIVE [1] 74:19; CONSIDER [2] 21:24; 85:2; CONSIDERED [2] 85:4; 90:25; CONSTITUENTS [1] 98:19; CONTACT [3] 20:15; 75:19; 92:9; CONTACTED [1] 20:14; CONTAIN [3] 82:18; 82:21; 87:10; CONTAINING [2] 66:25; 82:8; CONTAINMENT [1] 82:25; CONTAINMENTS [1] 5:2; CONTAMINANT [2] 39:6; 82:15; CONTENT [1] 49:11; CONTENTION [1] 91:5; CONTINUE [6] 23:9; 45:10; 45:22; 46:4; 46:6; 65:8; CONTINUED [1] 98:14; CONTINUING [2] 37:16; 43:13; CONTRACT [3] 8:8; 46:9; 65:21; CONTRACTOR [25] 2:11; 4:8; 4:12; 4:16; 4:19; 8:24; 10:6; 10:14; 18:17; 23:4; 27:25; 28:16; 32:19; 40:3; 45:9; 45:24; 60:17; 64:13; 65:22; 81:3; 84:4; 87:12; 106:22; 107:5; 107:7; CONTRACTORS [10] 6:5; 7:1; 7:6; 7:9; 7:13; 17:18; 61:13; 107:13; 107:19; 107:22; CONTRACTS [1] 6:2; CONTROL [2] 16:6; 75:11; COOL [1] 40:20; COORDINATE [1] 103:4; COPIES [1] 5:25; COPY [10] 3:12; 3:23; 4:20; 4:20; 5:8; 11:20; 11:24; 23:20; 32:9; 97:20; CORDOVA [1] 62:15; CORPORATE [1] 8:10; CORRECTION [1] 31:20; COSTS [4] 56:25; 94:20; 95:1; 95:2; COUNCIL [1] 79:17; COUNSEL [2] 10:2; 10:23; COUPLE [6] 5:21; 29:3; 54:3; 60:7; 65:24; 76:2; COURSE [7] 16:5; 19:22; 37:9; 43:19; 44:20; 47:16; 54:4; COURT [1] 6:8; COVER [3] 2:22; 2:22; 14:19;
--	----------------	---	---

COVERED [2] 10:14; 11:10;	DEPEND [1] 77:5;	36:20; 37:16; 38:6; 38:7; 40:13;	EIR [1] 11:7;
CREATING [1] 85:24;	DEPENDING [2] 77:19; 78:11;	40:13; 43:12; 45:25; 52:4; 57:17;	EITHER [14] 7:9; 20:19; 20:23;
CRITERIA [2] 30:9; 33:9;	DEPENDS [2] 90:24; 104:21;	61:19; 62:23; 64:23; 68:4; 68:13;	22:4; 25:22; 29:3; 33:2; 47:25;
CRITICAL [7] 69:24; 69:25; 70:1;	DESIGN [8] 25:12; 25:17; 27:2;	72:15; 78:3; 78:13; 78:17; 79:7;	80:11; 81:15; 94:1; 101:23; 102:17;
85:2; 85:4; 85:8; 91:1;	27:6; 27:13; 41:6; 57:15; 62:9;	79:22; 82:7; 86:6; 86:11; 87:6;	106:18;
CRITTERS [1] 91:10;	DESIGNATED [1] 85:8;	93:23; 100:4; 105:16; 105:18; 106:4;	EITHER/OR [1] 83:18;
CSR [1] 1:25;	DETAIL [4] 2:23; 4:7; 58:15; 68:16;	DOORSTOP [1] 35:17;	ELABORATE [1] 21:7;
CURRENT [4] 24:13; 35:22;	DETAILS [1] 80:15;	DOUBLE [4] 35:4; 39:11; 44:4;	ELECTRONIC [3] 3:10; 3:11; 3:23;
41:19; 77:11;	DETERMINATION [3] 85:7;	44:5;	EMPHASIS [1] 66:4;
CURRENTLY [11] 3:3; 4:12;	90:15; 94:21;	DOWN [16] 15:16; 33:10; 50:15;	ENCOMPASSING [1] 75:2;
4:21; 9:13; 10:14; 24:2; 34:5;	DETERMINATIONS [1] 55:24;	52:10; 52:18; 60:6; 72:4; 73:1;	ENCOURAGE [1] 37:8;
34:15; 43:21; 61:25; 99:15;	DETERMINE [1] 53:8;	73:6; 78:23; 83:1; 83:2; 92:3;	END [25] 20:7; 20:8; 35:3; 43:10;
CURVE [1] 30:24;	DETERMINED [1] 80:19;	95:24; 98:12; 104:1;	44:5; 47:18; 48:19; 50:1; 53:15;
CUTTING [1] 65:12;	DEVELOP [1] 9:19;	DRAFT [20] 9:7; 10:18; 11:22;	53:16; 55:13; 55:15; 75:17; 76:6;
CYCLE [4] 27:20; 56:25; 87:4; 89:9;	DEVELOPMENT [1] 44:24;	12:14; 12:16; 12:20; 13:4; 14:9;	76:8; 76:9; 77:12; 79:7; 79:13;
CYCLES [1] 87:6;	DH [1] 68:21;	25:3; 28:24; 43:11; 61:7; 61:8;	80:3; 81:1; 82:20; 84:25; 85:9;
=====	DHS [1] 68:21;	87:8; 88:24; 89:5; 89:7; 89:11;	105:16;
- D -	DIALOGUE [1] 96:18;	89:11; 90:9;	END.' [1] 57:5;
=====	DIED [1] 52:12;	DRAFT-FINAL [14] 12:11;	ENDANGERED [8] 84:20;
DATA [24] 31:24; 32:6; 33:17;	DIFFERENCE [2] 91:17; 106:16;	12:12; 12:24; 13:4; 14:9; 22:19;	85:23; 88:6; 90:14; 91:3; 91:4;
34:14; 36:3; 37:14; 37:17; 37:25;	DIFFERENT [21] 3:17; 7:1; 7:2;	23:22; 25:4; 87:8; 89:2; 89:5; 89:7;	91:7; 91:13;
39:15; 39:23; 39:24; 40:9; 42:22;	7:5; 10:16; 10:21; 37:19; 51:24;	90:5; 90:9;	ENDED [1] 53:19;
43:3; 43:20; 43:22; 44:1; 55:22;	60:21; 61:4; 61:6; 61:21; 62:9;	DRAWING [1] 73:3;	ENDS [1] 54:6;
64:18; 64:20; 66:19; 67:19; 68:1;	64:19; 64:22; 65:7; 67:1; 68:10;	DRILL [2] 28:10; 80:18;	ENERGY [3] 9:25; 10:3; 10:5;
69:16;	88:10; 88:11; 107:13;	DRINKING [2] 51:18; 67:11;	ENGINEER [1] 58:1;
DATE [6] 18:21; 18:22; 19:8;	DIFFERENTLY [1] 58:10;	DRIVER [9] 56:1; 56:3; 59:2;	ENGINEERING [10] 2:8; 6:14;
19:12; 19:13; 79:5;	DIFFICULT [4] 58:24; 59:10;	76:5; 76:11; 76:13; 84:15; 84:21;	56:25; 71:25; 73:8; 74:2; 74:6;
DATES [1] 13:17;	59:14; 84:17;	88:5;	74:8; 76:1; 79:18;
DAVOL [14] 1:9; 2:11; 2:11;	DIFFICULTY [1] 65:23;	DRIVING [1] 84:9;	ENOUGH [4] 49:5; 68:1; 78:3;
33:15; 33:20; 33:24; 34:3; 35:14;	DIG [3] 63:22; 64:3; 66:12;	DRY [4] 22:12; 100:16; 102:16;	94:11;
38:3; 43:15; 47:24; 48:1; 90:21;	DIGEST [1] 36:3;	102:20;	ENTERED [2] 4:17; 11:18;
106:1;	DIGESTING [1] 33:20;	DTSC [2] 1:11; 2:13;	ENTERTAIN [1] 21:14;
DAY [16] 18:13; 19:15; 19:16;	DILUTED [1] 82:16;	DUE [1] 12:22;	ENTIRE [4] 3:10; 3:12; 16:15;
19:17; 19:18; 22:5; 22:8; 43:1;	DIRECTED [1] 82:10;	DURING [6] 14:18; 18:13; 19:21;	47:12;
50:21; 95:23; 95:24; 105:4; 105:8;	DIRECTOR [2] 71:2; 74:5;	47:13; 52:13; 54:3;	ENVIROGEN [1] 62:24;
105:9; 105:14; 105:17;	DISAGREEMENTS [1] 89:21;	DYNAMIC [1] 26:12;	ENVIRONMENT [1] 61:15;
DAYS [10] 12:24; 14:10; 15:24;	DISCERN [1] 43:20;	=====	ENVISION [1] 26:23;
19:19; 76:1; 87:7; 103:23; 105:5;	DISCHARGE [1] 58:9;	- E -	ENVISIONED [1] 20:8;
105:11; 105:24;	DISCUSS [8] 10:24; 18:16; 19:2;	=====	ENVISIONING [2] 15:2; 89:11;
DEAL [11] 16:6; 51:25; 52:5;	92:16; 92:18; 93:10; 102:8; 106:22;	E-MAIL [1] 31:10;	EPA [7] 1:14; 2:10; 2:12; 21:8;
55:18; 67:13; 72:20; 74:7; 85:15;	DISCUSSED [1] 41:22;	EACH [7] 15:3; 19:17; 19:18;	47:8; 99:24; 100:22;
85:16; 89:14; 89:16;	DISCUSSION [1] 73:25;	61:3; 102:19; 103:15; 103:16;	EQUIVALENT [3] 9:18; 11:11;
DEALING [3] 9:13; 89:13; 107:22;	DISCUSSIONS [1] 71:15;	EARLIER [5] 11:23; 12:2; 12:6;	11:13;
DEALS [1] 73:23;	DISPLAYS [2] 21:4; 21:7;	23:3; 107:20;	ESPECIALLY [2] 37:25; 74:19;
DEALT [1] 85:6;	DISTRIBUTE [1] 3:13;	EARLIEST [1] 19:10;	ESSENCE [1] 25:13;
DECEMBER [7] 1:4; 2:2; 29:6;	DISTURB [2] 90:25; 92:2;	EARLY [3] 13:24; 105:19; 106:4;	ETHANOL [1] 55:8;
75:18; 80:7; 96:11; 96:12;	DLJ [1] 93:15;	EASE [1] 21:13;	EVALUATE [1] 27:25;
DECIDE [1] 16:23;	DOCUMENT [7] 9:24; 10:1;	EASIER [6] 3:13; 7:12; 18:6;	EVALUATION [1] 57:16;
DECIDED [3] 50:20; 51:6; 70:1;	10:5; 10:6; 25:12; 27:6; 27:18;	27:22; 55:4; 58:12;	EVEN [15] 9:17; 11:12; 28:8;
DECISION [8] 14:4; 26:15; 27:5;	DOCUMENTATION [1] 70:10;	EASILY [2] 4:1; 20:10;	38:12; 40:3; 40:4; 43:11; 54:10;
27:6; 57:16; 77:14; 77:21; 77:24;	DOCUMENTS [8] 3:13; 3:15;	EASY [5] 4:4; 72:3; 75:21; 75:23;	56:19; 56:21; 66:5; 66:7; 75:19;
DECISIONS [1] 78:19;	4:1; 11:2; 11:4; 31:8; 31:16; 33:3;	81:5;	97:25; 104:20;
DEED [1] 71:5;	DOD [1] 17:13;	ECONOMICALLY [1] 57:24;	EVENT [1] 69:5;
DEEP [1] 27:7;	DOING [56] 3:19; 4:16; 4:25;	ECONOMY [1] 58:25;	EVENTUALLY [4] 7:8; 17:8;
DEFENSE [1] 57:24;	5:13; 5:15; 5:17; 6:19; 14:16; 16:9;	EDGE [1] 65:12;	50:8; 70:7;
DEFINITELY [1] 55:23;	16:17; 17:4; 18:9; 18:18; 25:6;	EE/CA [9] 83:7; 83:20; 86:4;	EVER [2] 31:15; 52:18;
DEGRADATION [1] 61:22;	26:5; 26:8; 28:25; 30:22; 31:12;	86:18; 87:2; 88:21; 89:13; 89:18;	EVERY [2] 87:8; 87:8;
DEGRADE [4] 48:9; 48:11;	32:23; 33:24; 36:6; 37:4; 37:18;	93:4;	EVERYBODY [14] 2:18; 2:24;
49:18; 55:12;	38:14; 41:1; 44:8; 50:14; 53:19;	EE/CAS [2] 70:9; 77:19;	5:4; 14:19; 16:25; 17:5; 18:2; 18:7;
DEGRADED [1] 48:14;	55:21; 58:6; 60:23; 64:10; 65:4;	EFFECTIVE [2] 18:11; 63:6;	19:21; 47:22; 51:11; 74:13; 95:14;
DEGRADING [1] 49:18;	67:25; 68:18; 68:19; 70:9; 70:15;	EFFECTS [1] 41:5;	105:19;
DELAY [2] 79:1; 79:1;	70:16; 74:17; 77:6; 77:7; 78:13;	EFFICIENCY [1] 53:9;	EVERYBODY'S [1] 86:16;
DELIVERABLES [1] 92:20;	78:14; 80:17; 80:25; 83:19; 87:3;	EFFICIENT [1] 55:5;	EVERYONE [1] 42:2;
DEMONSTRATED [1] 62:17;	87:4; 96:22; 96:24; 97:11; 100:9;	EFFLUENT [1] 47:17;	EVERYTHING [9] 2:25; 4:2; 4:3;
DENT [1] 43:5;	101:6; 107:7;	EFFORT [4] 65:10; 67:10; 67:16;	6:3; 7:14; 35:10; 38:14; 51:12; 58:23;
DEPARTMENT [3] 9:25; 10:2;	DONE [44] 3:8; 9:7; 14:12; 20:6;	68:21;	EVOLUTION [1] 11:14;
10:4;	20:8; 25:2; 26:15; 27:24; 28:11;	EFFORTS [2] 43:6; 66:1;	EX [2] 38:10; 62:25;
DEPARTMENTS [1] 100:22;	31:1; 31:5; 33:16; 34:10; 36:4;	EIGHT [1] 100:16;	EXACT [3] 36:21; 42:20; 80:19;

EXACTLY [7] 22:13; 68:8; 98:5; 101:8; 105:13; 105:13; 105:20; EXAMPLE [1] 18:12; EXCEED [1] 95:5; EXCELLENT [1] 49:3; EXCEPT [1] 97:6; EXCEPTIONALLY [1] 62:14; EXCEPTIONS [1] 108:21; EXCESS [2] 48:24; 48:25; EXCHANGE [9] 47:18; 48:18; 48:21; 50:1; 50:5; 50:9; 50:14; 50:25; 59:19; EXCHANGED [1] 59:24; EXCHANGES [1] 50:13; EXCHANGING [1] 50:16; EXISTING [1] 35:21; EXPAND [1] 6:20; EXPANDED [11] 24:15; 24:25; 25:8; 27:21; 29:21; 32:13; 42:14; 43:23; 45:8; 45:22; 61:1; EXPANDING [2] 23:24; 24:4; EXPANSION [3] 4:10; 28:17; 42:6; EXPECT [4] 12:4; 20:12; 25:9; 26:20; EXPECTED [5] 51:5; 54:5; 97:13; 97:14; 97:22; EXPECTING [4] 6:21; 24:14; 50:7; 52:12; EXPENSIVE [1] 39:22; EXPERTISE [1] 7:6; EXPLAIN [2] 33:22; 47:20; EXPRESSED [1] 32:4; EXTENSIVE [2] 78:13; 100:21; EXTENT [4] 36:5; 45:25; 63:13; 67:6; EXTRA [2] 31:16; 67:4; EXTRACT [2] 73:5; 96:1; EXTRACTING [1] 96:4; EXTRACTION [18] 4:9; 17:20; 23:2; 24:6; 28:2; 34:8; 38:23; 64:1; 64:20; 66:22; 67:11; 68:25; 72:14; 72:25; 73:1; 81:21; 81:22; 82:4; =====	FEEDING [3] 47:15; 52:14; 54:12; FEEL [5] 21:12; 84:14; 86:1; 87:24; 87:25; FELT [5] 15:25; 21:11; 82:4; 84:22; 94:21; FEW [3] 17:4; 68:10; 76:19; FIELD [2] 42:23; 70:12; FIGHT [2] 89:25; 90:2; FIGURE [6] 7:14; 10:9; 24:22; 55:21; 69:1; 99:24; FIGURED [3] 49:25; 51:25; 62:6; FILED [1] 100:1; FILL [2] 44:1; 67:19; FILTER [13] 10:12; 46:20; 48:22; 48:23; 57:10; 57:13; 58:19; 59:17; 60:4; 60:13; 61:17; 61:25; 98:23; FINAL [10] 5:21; 14:10; 25:9; 28:21; 41:6; 53:12; 89:11; 89:24; 97:17; 108:18; FINALIZE [2] 6:1; 107:3; FINALIZED [5] 5:10; 5:11; 14:13; 18:22; 77:14; FINALIZING [1] 7:17; FINALLY [2] 69:15; 85:1; FIND [9] 4:4; 54:19; 65:11; 65:13; 71:1; 76:1; 94:10; 99:7; 99:22; FINDING [2] 48:20; 99:21; FINE [13] 12:7; 19:9; 26:3; 50:7; 68:9; 86:13; 87:14; 88:21; 94:6; 103:21; 105:14; 105:20; 106:19; FINER [1] 66:7; FINISHING [1] 11:1; FIRST [17] 2:19; 3:24; 7:20; 8:15; 8:23; 14:6; 42:24; 47:13; 60:12; 70:3; 75:13; 82:25; 92:13; 92:14; 98:12; 102:4; 105:17; FISCAL [1] 20:9; FISII [4] 84:25; 85:25; 90:24; 91:14; FIVE [3] 35:10; 78:3; 82:14; FLOW [5] 10:7; 61:3; 68:4; 68:8; 68:12; FLows [1] 48:8; FLUIDIZED [8] 46:20; 47:21; 48:2; 48:5; 53:2; 58:19; 60:20; 62:6; FLYING [1] 104:1; FOCUS [2] 56:7; 74:6; FOCUSING [1] 22:1; FOLKS [5] 9:11; 19:6; 20:16; 38:22; 84:25; FOOD [4] 47:15; 54:6; 55:7; 62:2; FOOTHILL [1] 100:17; FOOTPRINT [1] 92:2; FORBID [1] 108:16; FORESEE [1] 98:20; FORESEEING [1] 105:2; FORGET [1] 99:3; FORM [3] 15:20; 39:3; 43:22; FORMAL [24] 10:2; 11:22; 11:25; 12:8; 17:9; 17:25; 18:6; 18:19; 18:21; 20:20; 23:14; 28:8; 31:25; 32:6; 32:22; 33:12; 37:13; 44:17; 70:3; 70:8; 74:3; 77:19; 86:17; 87:13; FORMALITY'S [1] 86:19; FORMALIZED [1] 32:14; FORMALIZING [2] 7:18; 37:5; FORMALLY [1] 86:5; FORMAT [8] 4:3; 10:20; 14:5; 14:22; 16:25; 17:2; 17:6; 20:23;	FORTH [1] 71:19; FORTUITOUSLY [1] 50:4; FORWARD [3] 47:9; 47:9; 99:16; FOSTER [29] 4:8; 4:15; 23:5; 23:9; 23:11; 25:2; 27:23; 28:2; 30:7; 30:24; 31:9; 34:6; 34:25; 36:25; 41:10; 41:17; 43:12; 43:15; 44:2; 57:10; 60:14; 61:7; 62:21; 68:4; 68:13; 78:13; 87:5; 98:20; 98:22; FOUND [8] 17:13; 17:14; 49:2; 50:8; 53:14; 54:7; 57:12; 99:9; FOUR [8] 49:5; 49:6; 54:16; 64:19; 80:22; 83:21; 86:10; 87:1; FOURTH [2] 94:14; 95:9; FRAME [7] 22:20; 28:7; 63:11; 77:12; 77:17; 77:17; 102:10; FREQUENT [1] 39:22; FREQUENTLY [2] 37:21; 39:24; FRIDAY [1] 14:17; FRIDAY-SATURDAY [4] 13:7; 13:8; 13:12; 14:16; FRIDAYS [1] 106:13; FRIENDLY [1] 17:6; FRONT [4] 44:18; 53:15; 53:16; 58:15; FS [15] 61:8; 62:21; 83:15; 83:22; 86:5; 86:5; 86:17; 86:18; 86:24; 87:4; 87:7; 88:9; 88:12; 88:24; 90:8; FULL [6] 25:16; 25:23; 36:12; 52:21; 55:22; 86:2; FULL-SCALE [1] 51:16; FUNCTIONALLY [3] 9:18; 11:11; 11:13; FUNDING [1] 73:21; FURTHER [9] 7:17; 19:8; 36:2; 65:3; 74:22; 78:23; 82:22; 87:9; 101:3; FUTURE [12] 3:14; 7:18; 7:24; 11:2; 11:3; 29:25; 40:14; 51:20; 55:18; 67:14; 69:9; 71:9; =====	49:19; 54:17; 60:17; 64:18; 65:23; 75:11; 76:19; 80:21; 81:4; 84:23; 86:15; 90:3; 97:1; GIVE [25] 2:23; 3:6; 3:22; 5:8; 5:23; 6:2; 8:4; 12:3; 12:17; 14:1; 14:11; 22:21; 25:22; 34:23; 35:11; 37:16; 39:23; 41:2; 43:11; 56:22; 71:5; 75:22; 79:12; 85:20; 101:15; GIVEN [5] 25:15; 83:18; 96:8; 97:17; 104:17; GIVES [1] 19:19; GIVING [7] 18:6; 27:16; 40:5; 55:7; 73:4; 77:17; 87:3; GOAL [8] 20:7; 52:1; 52:2; 66:24; 80:6; 82:19; 86:13; 91:15; GOALS [1] 68:14; GOD [2] 57:3; 108:16; GOES [10] 17:5; 21:15; 23:21; 35:23; 48:14; 52:18; 72:24; 73:17; 100:7; 105:19; GONE [2] 13:4; 94:22; GOOD [19] 3:25; 18:20; 19:19; 21:9; 22:8; 22:20; 22:22; 35:25; 44:8; 51:25; 52:16; 62:22; 63:20; 64:25; 92:17; 99:14; 104:25; 108:3; 108:6; GPM [1] 61:3; GRANULAR-ACTIVATED [2] 48:5; 48:16; GRAPHS [1] 41:4; GRAVY [1] 40:23; GREAT [6] 2:21; 35:17; 46:16; 47:10; 50:6; 57:23; GREATER [1] 68:16; GREATLY [1] 34:12; GROUND [10] 38:25; 39:5; 40:11; 40:18; 40:21; 40:24; 48:4; 49:23; 56:15; 56:20; GROUNDWATER [18] 4:25; 26:19; 46:12; 46:19; 48:3; 48:8; 48:17; 49:14; 52:3; 54:8; 55:10; 58:11; 63:4; 65:21; 65:22; 107:8; 108:7; 108:13; GROUP [5] 19:2; 21:25; 34:5; 58:13; 103:1; GROWN [1] 48:6; GUESS [9] 8:16; 31:14; 33:16; 37:11; 47:22; 58:21; 94:16; 97:9; 97:12; GUIDANCE [2] 10:1; 10:3; GUIDELINES [1] 9:19; GUYS [12] 14:7; 20:14; 21:20; 28:9; 31:15; 42:6; 75:11; 83:15; 96:14; 97:9; 99:2; 99:8; =====
- F - =====	- G - =====	- H - =====	H2S [1] 48:11; HABITAT [9] 85:3; 85:4; 85:8; 85:13; 85:23; 91:1; 91:18; 91:22; 91:23; HALF [6] 19:15; 19:16; 22:8; 96:7; 105:3; 105:4; HANDLE [2] 7:4; 51:17; HANDLED [1] 22:2; HAPPEN [8] 24:3; 43:9; 64:5; 89:21; 102:11; 105:1; 105:1; 106:3; HAPPENED [4] 42:3; 93:17;

HAPPENING [2] 10:17; 36:8; HAPPENS [2] 28:6; 75:6; HAPPY [9] 90:3; 94:8; 94:9; 94:10; 94:17; 95:14; 96:14; 96:15; 96:16; HARD [1] 19:20; HAVING [17] 14:14; 17:3; 20:4; 20:5; 20:8; 27:24; 49:11; 50:23; 50:24; 59:23; 64:2; 69:1; 79:14; 89:11; 90:19; 98:18; 105:5; HEAD [2] 58:2; 65:19; HEADQUARTERS [5] 9:17; 66:3; 71:16; 72:10; 81:18; HEALTH [1] 4:13; HEAR [3] 77:13; 85:21; 108:9; HEARD [3] 67:23; 97:15; 100:15; HEATH [5] 1:12; 4:17; 6:13; 6:13; 102:11; HEAVILY [1] 28:20; HEELS [1] 43:2; HELP [12] 37:1; 38:11; 55:17; 55:17; 55:23; 58:22; 63:8; 63:13; 69:8; 69:8; 73:6; 84:23; HELPING [6] 4:25; 6:16; 6:18; 6:22; 64:11; 68:20; HERETOFORE [1] 32:3; HESITANT [1] 59:16; HEY [2] 26:23; 79:24; HIGH [3] 54:7; 54:14; 54:25; HIGHER [2] 47:16; 73:5; HISTORY [3] 82:12; 82:12; 92:24; HIT [4] 30:14; 47:16; 54:2; 58:2; HOLDING [1] 80:20; HOLES [3] 27:7; 27:11; 40:23; HOLIDAY [1] 29:2; HOLIDAYS [1] 22:22; HOME [2] 19:24; 105:19; HOPEFULLY [15] 6:17; 18:10; 29:24; 46:8; 65:13; 68:22; 75:15; 79:11; 81:2; 92:8; 95:10; 96:20; 96:22; 96:24; 107:10; HOPING [13] 8:25; 11:20; 12:1; 15:21; 57:8; 58:20; 59:12; 65:24; 80:3; 85:3; 87:15; 91:1; 96:17; HORRIBLY [1] 39:22; HOURLY [1] 105:3; ===== - I - ===== IDEA [11] 18:20; 29:22; 35:25; 37:2; 37:4; 40:8; 60:24; 61:21; 75:19; 79:20; 101:17; IDEAS [5] 8:15; 37:22; 69:2; 77:18; 79:21; IDENTIFIED [1] 100:15; IDENTIFY [2] 6:8; 43:25; IDIOTS [1] 108:14; IMAGINE [2] 25:7; 83:9; IMMEDIATELY [1] 98:6; IMPACT [8] 38:24; 66:19; 72:23; 72:24; 78:21; 83:1; 90:15; 92:5; IMPACTED [1] 84:11; IMPACTING [3] 78:23; 82:22; 88:4; IMPACTS [2] 26:18; 67:13; IMPLEMENT [1] 78:8; IMPLEMENTATION [1] 33:13; IMPLEMENTED [1] 44:19;	IMPLEMENTING [2] 41:23; 42:2; INADEQUATE [1] 25:18; INCLUDE [4] 11:16; 39:18; 74:13; 92:21; INCORPORATE [5] 10:25; 41:16; 76:12; 79:11; 79:22; INCORPORATED [1] 11:4; INCORPORATES [1] 9:21; INCORPORATING [2] 69:15; 69:16; INDEXED [2] 3:9; 4:3; INDEXING [1] 99:3; INDICATED [5] 67:18; 67:20; 67:21; 67:24; 68:14; INDICATING [1] 44:22; INDICATION [1] 87:22; INDIVIDUAL [2] 17:15; 17:23; INDIVIDUALIZED [1] 18:10; INDIVIDUALLY [1] 21:17; INDIVIDUALS [1] 6:7; INFILTRATION [3] 66:23; 90:15; 91:17; INFORMATION [18] 15:4; 15:13; 15:23; 16:3; 17:1; 17:17; 26:13; 30:11; 31:10; 34:21; 41:11; 65:11; 89:8; 92:15; 92:18; 101:3; 101:5; 108:4; INFORMED [1] 95:18; INITIAL [3] 25:3; 29:1; 56:4; INJECTION [12] 58:11; 63:15; 63:16; 64:1; 66:21; 66:22; 75:12; 88:11; 89:22; 90:17; 90:20; 91:20; INKLING [1] 98:1; INPUT [7] 8:10; 18:19; 26:11; 32:21; 32:24; 40:5; 86:16; INPUTS [2] 73:16; 80:6; INPUTTING [1] 73:20; INSIGNIFICANT [1] 49:21; INSPECTION [1] 99:4; INSTEAD [5] 21:13; 50:22; 50:23; 70:2; 70:7; INTEGRAL [1] 8:11; INTENSIVE [1] 96:19; INTEREST [2] 8:9; 37:15; INTERESTED [3] 17:18; 85:20; 100:11; INTERIM [3] 70:25; 79:16; 83:24; INTERNAL [5] 9:7; 9:11; 43:11; 75:24; 79:18; INTIMATELY [1] 16:15; INTRODUCE [1] 2:5; INTRODUCTION [1] 65:21; INVESTIGATING [1] 101:20; INVESTIGATION [1] 66:10; INVITING [1] 21:19; INVOLVE [2] 23:24; 24:5; INVOLVED [8] 8:5; 8:8; 16:15; 19:5; 26:20; 28:20; 47:1; 85:21; INVOLVEMENT [4] 83:8; 86:2; 86:14; 87:2; ION [10] 47:17; 48:18; 48:20; 49:25; 50:5; 50:9; 50:13; 50:14; 50:25; 59:18; IRRITATING [1] 85:25; ISOLATED [1] 61:13; ISSUE [39] 9:16; 14:2; 16:5; 16:7; 17:24; 31:3; 50:10; 55:11; 56:9; 58:25; 59:1; 59:2; 66:8; 67:4;	69:14; 71:14; 72:17; 73:16; 74:2; 74:8; 74:21; 75:16; 76:12; 79:24; 84:13; 84:20; 85:10; 85:23; 87:21; 87:23; 90:22; 91:7; 94:23; 98:14; 98:15; 98:16; 98:24; 100:7; 103:5; ISSUED [1] 98:8; ISSUES [29] 8:14; 9:11; 16:2; 20:12; 22:3; 49:25; 55:25; 56:4; 59:12; 59:13; 66:2; 71:20; 74:7; 75:24; 79:3; 81:8; 82:3; 83:4; 84:8; 85:5; 85:14; 91:14; 92:12; 93:7; 93:10; 93:21; 97:6; 98:18; 108:13; ITEM [19] 4:7; 4:22; 7:20; 8:15; 16:2; 22:25; 22:25; 24:10; 24:25; 44:10; 44:12; 46:19; 64:17; 64:17; 66:8; 69:14; 73:18; 79:9; 84:19; ITEMS [10] 7:19; 11:15; 22:3; 34:6; 81:12; 84:19; 93:6; 93:8; 96:13; 97:5; ITERATIONS [1] 76:3; IX [1] 99:10; ===== - J - ===== J [1] 1:16; JANUARY [25] 8:2; 11:21; 11:25; 12:8; 12:21; 24:25; 27:11; 28:7; 42:17; 42:21; 57:11; 60:12; 60:16; 63:10; 77:4; 85:1; 85:9; 102:22; 102:23; 103:6; 103:13; 103:17; 104:14; 104:15; 107:2; JANUARY'S [1] 8:1; JANUARY-FEBRUARY [1] 83:23; JEFF [2] 6:13; 6:15; JEFFERY [1] 1:12; JPL [6] 1:7; 1:13; 2:14; 3:21; 40:13; 61:14; JR [1] 1:15; 1:16; JUDGMENT [2] 30:17; 87:11; JUDITH [1] 1:13; JUDY [2] 2:14; 8:5; JUDY'S [1] 6:18; JUNCTURE [1] 43:6; JUNE [1] 100:12; JUSTIFICATION [1] 35:23; ===== - K - ===== K [1] 1:25; KARMAN [2] 15:21; 103:4; KEEP [10] 40:19; 40:21; 41:1; 52:20; 54:9; 78:23; 78:25; 79:25; 82:22; 96:18; KEEPING [1] 54:13; KEY [11] 8:2; 18:11; 21:11; 26:16; 26:21; 38:22; 56:24; 75:16; 90:22; 91:3; 93:20; KIM [1] 99:10; KIMBERLY [7] 1:10; 6:10; 6:15; 6:18; 6:22; 24:12; 28:18; KIND [37] 5:14; 5:16; 6:17; 11:5; 14:1; 14:20; 14:21; 27:18; 28:11; 31:24; 34:11; 37:4; 37:22; 39:17; 39:19; 40:22; 41:14; 43:14; 47:19; 58:2; 58:13; 59:15; 59:15; 69:20; 78:24; 79:3; 82:24; 85:22; 91:16; 97:12; 97:14; 98:8; 98:9; 99:18;	99:21; 100:20; 103:22; KINDS [1] 34:21; KNOWLET [1] 26:8; KNOWN [2] 11:3; 42:1; KUYKENDALL [2] 59:5; 59:6; ===== - L - ===== L [1] 1:7; LABORATORY [3] 1:3; 97:25; 98:7; LARGE [2] 62:14; 96:6; LAST [9] 14:11; 23:8; 48:13; 54:3; 58:3; 75:18; 95:22; 99:2; 100:15; LATE [1] 13:24; LATER [7] 2:23; 66:9; 67:7; 74:8; 78:1; 88:8; 89:23; LAW [1] 11:13; LAWYERS [1] 74:1; LAYER [1] 85:5; LEAD [1] 58:3; LEADS [1] 99:25; LEANING [2] 85:11; 91:24; LEARNED [3] 51:14; 51:23; 55:16; LEARNING [1] 30:24; LEASE [1] 71:6; LEAST [12] 8:21; 8:22; 22:1; 29:14; 58:3; 76:15; 79:20; 80:4; 83:8; 92:10; 95:15; 108:13; LEAVE [2] 8:20; 74:1; LEFT [4] 4:15; 10:13; 99:11; 99:11; LEGAL [1] 74:7; LEISURE [1] 5:16; LESS [4] 32:18; 39:24; 85:20; 98:3; LETTER [7] 47:1; 47:4; 47:7; 47:8; 97:10; 97:11; 97:20; LETTERS [1] 51:9; LEVEL [2] 30:14; 51:5; LEVELS [11] 49:4; 49:9; 49:9; 49:10; 50:15; 50:22; 51:18; 51:22; 54:1; 82:14; 82:16; LIBRARIES [1] 3:17; LIFE [1] 56:25; LIGHT [1] 70:25; LIGHTS [1] 21:23; LIMBO [1] 100:3; LIMIT [1] 62:11; LIMITED [1] 62:20; LIMITING [2] 56:10; 57:17; LINCOLN [3] 15:11; 94:5; 94:6; LINE [4] 72:18; 76:14; 78:24; 87:19; LIST [5] 6:2; 7:20; 15:18; 15:19; 101:4; LITIGATION [2] 93:11; 93:22; LITTLE [23] 2:23; 4:7; 4:11; 8:17; 9:14; 10:7; 17:5; 17:21; 20:1; 23:17; 36:19; 49:20; 51:15; 51:24; 55:1; 55:6; 57:25; 58:10; 62:9; 65:23; 66:10; 81:9; 84:17; LIVE [1] 56:11; LOAD [1] 53:21; LOADED [2] 50:8; 51:1; LOCATION [2] 80:12; 92:3; LOCATIONS [1] 93:1; LOGISTICS [2] 22:3; 22:10; LONG [13] 15:23; 22:6; 54:11; 64:4; 64:7; 65:18; 71:16; 71:17; 79:1; 99:19; 100:3; 100:23; 107:4;
--	---	--	---

LONG-TERM [1] 39:17;
LONGER [2] 86:10; 89:13;
LOOK [24] 5:15; 5:18; 5:20; 9:22;
 10:9; 13:22; 15:22; 30:16; 32:19;
 35:20; 41:6; 42:9; 45:17; 45:24;
 45:25; 57:11; 67:21; 71:7; 72:5;
 72:5; 74:21; 79:10; 82:22; 97:6;
LOOKING [35] 8:9; 11:19; 13:2;
 13:3; 14:5; 21:22; 22:17; 28:5;
 29:12; 30:4; 40:5; 42:21; 43:3;
 54:5; 54:25; 57:12; 63:14; 66:11;
 66:17; 66:18; 66:21; 67:2; 68:11;
 68:15; 69:4; 71:13; 73:15; 73:19;
 75:25; 78:21; 79:19; 82:6; 82:11;
 87:23; 92:6;
LOOKS [6] 28:17; 28:20; 29:14;
 30:21; 63:10; 64:15;
LOST [2] 71:11; 71:20;
LOUISE [1] 1:25;
LOVE [1] 35:16;
LOW [3] 53:17; 54:20; 54:21;
LOWER [3] 54:5; 54:6; 61:3;
LUNCH [2] 18:5; 105:7;
 =====
 - M -
 =====
MAGNITUDE [1] 49:21;
MAILING [2] 15:18; 15:19;
MAIN [9] 56:3; 59:1; 59:2; 66:1;
 76:11; 76:13; 80:6; 84:15; 84:21;
MAINTENANCE [1] 82:3;
MAJOR [11] 7:9; 55:25; 56:1;
 56:9; 59:12; 66:2; 66:4; 69:14;
 81:8; 82:3; 87:23;
MAKES [5] 18:5; 34:3; 76:20;
 85:21; 106:16;
MAKING [1] 86:1;
MANAGER [1] 70:25;
MANAGERS' [1] 1:2;
MANNER [1] 69:8;
MAPS [1] 17:22;
MARCH [11] 14:11; 22:20; 77:16;
 77:16; 102:3; 102:4; 102:5; 102:7;
 103:7; 103:17; 105:22;
MARCH-APRIL [1] 77:17;
MARK [11] 1:14; 2:10; 33:3;
 46:23; 47:1; 50:21; 57:24; 68:19;
 69:10; 81:5; 95:12;
MARK'S [3] 97:9; 97:10; 97:20;
MASS [4] 39:6; 40:11; 40:20; 41:3;
MATCHING [2] 92:24; 92:24;
MATRIX [1] 65:7;
MATTER [5] 40:14; 54:10; 86:16;
 90:19; 107:15;
MAXIMIZE [1] 36:22;
MEAN [10] 22:25; 29:12; 32:23;
 36:24; 38:8; 69:2; 77:5; 92:11;
 97:17; 98:16;
MEANS [1] 77:16;
MEASURING [1] 43:18;
MECHANISM [1] 73:22;
MEDIA [4] 21:19; 48:5; 48:8; 61:6;
MEET [8] 10:16; 19:11; 22:22;
 40:6; 51:10; 58:23; 59:11; 103:3;
MEETING [56] 1:2; 3:20; 3:25;
 4:18; 10:23; 11:18; 13:14; 14:1;
 14:12; 14:14; 18:3; 18:16; 18:24;
 19:2; 19:3; 20:5; 21:14; 21:20;

22:1; 22:2; 22:5; 22:7; 22:11;
 22:16; 22:20; 22:23; 29:6; 42:25;
 49:12; 73:14; 74:5; 76:16; 80:4;
 80:7; 84:24; 92:16; 95:24; 95:25;
 96:9; 102:1; 102:2; 102:14; 102:20;
 102:24; 102:25; 103:2; 103:7;
 103:22; 103:23; 104:15; 105:3;
 107:8; 107:21; 108:12; 108:21;
 108:21;
MEETINGS [17] 3:14; 8:7; 8:11;
 13:5; 13:16; 31:22; 37:15; 59:4;
 70:22; 86:23; 86:25; 95:22; 102:8;
 102:9; 102:19; 102:25; 104:17;
MEETS [2] 71:17; 71:17;
MEMO [1] 96:3;
MEMORIALIZE [1] 27:1;
MEMORIALIZES [1] 27:4;
MEMORY [1] 8:10;
MENTION [2] 24:16; 24:19;
MERGE [1] 43:7;
MERGING [1] 43:12;
MESSAGE [2] 99:11; 99:12;
MET [2] 30:9; 96:1;
METHOD [2] 70:4; 82:21;
MICROCOSM [2] 61:12; 62:23;
MIDDLE [4] 67:12; 72:13; 77:25;
 77:25;
MIGHT [15] 24:12; 28:10; 28:18;
 30:11; 37:20; 58:17; 58:21; 67:7;
 74:18; 83:22; 86:10; 89:13; 89:17;
 90:10; 103:20;
MILE [3] 64:4; 64:6; 100:17;
MILE-LONG [1] 63:18;
MILITARY [1] 85:17;
MILLION [1] 49:15;
MIND [1] 58:20;
MINDS [1] 76:16;
MINERAL [2] 49:11; 98:19;
MINIMAL [1] 96:4;
MINIMIZE [2] 26:22; 92:5;
MINUS [1] 76:19;
MINUTE [2] 44:14; 58:3;
MIRROR [1] 82:10;
MISINTERPRETED [1] 45:19;
MISSED [1] 48:22;
MISSING [1] 11:15;
MIZOTA [1] 1:25;
MOD [3] 68:4; 68:8; 68:12;
MODE [1] 53:20;
MODEL [6] 68:4; 68:6; 68:25;
 72:21; 92:17; 92:24;
MODELING [23] 4:25; 64:20;
 66:1; 66:1; 66:6; 66:11; 66:17;
 67:1; 67:9; 67:16; 69:16; 72:19;
 74:11; 78:3; 78:12; 87:15; 88:10;
 88:18; 90:4; 92:21; 104:23; 107:8;
 108:7;
MODIFICATION [1] 23:11;
MODIFY [1] 23:16;
MOMENT [2] 4:23; 95:15;
MONDAY [3] 10:17; 79:4; 79:23;
MONEY [3] 5:12; 27:10; 80:18;
MONITORING [26] 30:16;
 30:16; 31:4; 31:4; 31:6; 31:11;
 31:11; 32:15; 32:22; 33:6; 33:11;
 35:8; 37:10; 39:3; 39:18; 41:5;
 41:19; 42:7; 44:19; 46:12; 46:13;
 66:14; 66:15; 67:4; 70:12; 71:13;

MONTH [10] 3:21; 22:20; 35:3;
 42:23; 44:5; 46:11; 76:21; 79:7;
 102:13; 108:12;
MONTHLY [2] 92:10; 96:3;
MONTHS [18] 25:19; 49:8; 51:6;
 70:19; 71:1; 76:25; 77:22; 78:1;
 78:4; 78:11; 80:22; 83:21; 86:10;
 87:1; 87:8; 87:16; 95:13; 103:16;
MORE [50] 2:23; 4:7; 4:12; 6:20;
 8:17; 16:3; 17:1; 17:5; 18:8; 18:10;
 18:11; 21:13; 26:13; 28:19; 30:11;
 32:14; 32:17; 34:17; 36:19; 37:21;
 38:15; 39:22; 54:5; 55:4; 58:14;
 58:17; 58:24; 59:10; 59:14; 63:3;
 63:6; 66:6; 66:7; 66:9; 66:10;
 66:12; 67:18; 73:12; 83:2; 83:10;
 84:17; 86:16; 89:8; 89:9; 89:10;
 92:12; 94:1; 100:6; 100:6; 105:2;
MOST [3] 7:10; 57:11; 88:12;
MOSTLY [1] 90:15;
MOVE [6] 29:25; 30:2; 47:9; 60:8;
 60:14; 89:23;
MOVING [3] 64:16; 70:19; 79:25;
MULTI-MEDIA [1] 21:7;
MWD [3] 66:6; 74:16; 74:19;
MYSELF [2] 54:20; 70:23;
 =====
 - N -
 =====
NAIVELY [1] 58:21;
NAME [1] 99:10;
NAMES [1] 7:2;
NASA [16] 1:15; 2:9; 2:16; 3:6;
 7:21; 9:11; 9:16; 9:19; 15:3; 16:10;
 66:3; 69:7; 71:15; 72:9; 81:18; 93:17;
NASA/JET [1] 1:3;
NATURAL [1] 61:14;
NATURALLY [1] 63:1;
NATURALLY-OCCURRING
 [1] 63:2;
NAVAL [1] 2:8;
NAVY [8] 2:20; 3:3; 6:5; 6:14;
 7:21; 61:13; 63:14; 63:19;
NAVY/NASA [2] 1:12; 1:16;
NCP [1] 71:17;
NECESSARY [4] 30:3; 32:15;
 41:19; 105:9;
NEEDED [4] 18:11; 36:25; 37:6;
 37:7;
NEEDS [7] 3:7; 3:8; 9:19; 41:14;
 41:25; 43:23; 72:15;
NEGOTIATED [2] 71:21; 94:18;
NEGOTIATIONS [2] 77:8; 81:11;
NEITHER [1] 99:23;
NEPA [6] 9:19; 10:10; 10:16;
 10:25; 11:13; 11:14;
NERVOUS [1] 85:21;
NEVER [4] 28:4; 32:21; 91:9;
 100:1;
NEW [24] 7:16; 9:11; 10:18; 11:6;
 12:4; 27:11; 27:11; 36:4; 44:24;
 45:22; 46:6; 65:21; 67:10; 68:23;
 72:23; 73:4; 80:12; 80:18; 82:10;
 88:17; 89:5; 89:7; 90:4; 90:21;
NEXT [24] 10:17; 18:16; 22:5;
 24:14; 29:3; 45:2; 46:11; 57:8;
 65:24; 70:19; 76:6; 78:21; 79:9;
 81:2; 92:16; 95:20; 96:9; 96:19;

96:20; 100:12; 102:1; 102:2;
 102:25; 105:9;
NFESC [1] 6:12;
NICE [1] 35:9;
NITRATE [8] 48:9; 48:10; 54:7;
 54:11; 54:14; 54:25; 55:1; 55:13;
NITRATE-REDUCING [1] 48:7;
NITRITE [1] 49:4;
NO-WIN [1] 50:19;
NOBODY [4] 31:15; 71:21; 99:1;
 101:25;
NOMENCLATURE [1] 54:19;
NONDETECT [6] 47:11; 49:4;
 50:15; 51:12; 52:16; 54:4;
NONE [1] 95:8;
NONTIME [2] 69:24; 70:1;
NOON [2] 18:4; 105:6;
NOR [2] 75:18; 99:23;
NORMAL [2] 55:1; 97:24;
NORMALLY [1] 54:25;
NOTHING [8] 8:18; 22:25; 31:13;
 46:18; 73:24; 93:6; 100:19; 100:25;
NOTICE [2] 98:8; 100:2;
NOTIFY [1] 98:6;
NOVELLY [4] 1:13; 2:14; 2:14; 8:5;
NOVEMBER [4] 27:12; 75:17;
 79:13; 80:4;
NUMBER [17] 4:7; 4:23; 8:20;
 39:25; 44:10; 44:10; 44:12; 46:18;
 46:19; 53:21; 64:17; 64:17; 65:2;
 66:8; 66:19; 70:21; 70:22;
NUMBERS [1] 54:17;
NUTSHELL [1] 80:1;
 =====
 - O -
 =====
O'CLOCK [2] 18:3; 19:24;
OBJECTIVES [3] 68:17; 75:3; 75:3;
OBVIOUS [1] 30:21;
OCCURRING [1] 63:1;
OCTOBER [5] 20:9; 27:12;
 52:11; 95:23; 98:13;
OFFICE [4] 31:8; 31:18; 32:10;
 74:6;
OFFICER [1] 97:25;
OFFICIAL [2] 12:19; 102:20;
OFFICIALLY [2] 5:23; 72:11;
OH [14] 9:3; 19:23; 31:7; 40:17;
 40:18; 40:20; 40:23; 75:21; 78:5;
 85:22; 99:14; 101:8; 101:11; 107:6;
OLD [2] 82:2; 91:25;
ON-SITE [1] 83:11;
ONCE [10] 6:1; 7:15; 8:15; 13:3;
 14:3; 29:16; 43:21; 73:12; 75:15;
 75:24;
ONE [100] 4:4; 5:18; 7:9; 7:19;
 8:20; 9:20; 11:6; 11:19; 13:22;
 15:1; 17:16; 17:16; 18:12; 21:8;
 21:23; 22:1; 23:16; 24:1; 24:1;
 24:5; 30:1; 31:20; 32:4; 33:3; 34:6;
 35:4; 37:19; 38:21; 41:8; 42:17;
 42:25; 43:2; 43:4; 43:14; 44:13;
 44:24; 46:7; 47:12; 47:16; 47:23;
 49:24; 50:25; 50:25; 52:9; 53:18;
 53:21; 55:25; 57:8; 57:10; 57:13;
 59:11; 60:24; 61:6; 61:6; 61:8;
 61:13; 61:19; 62:13; 62:17; 62:19;
 62:22; 64:11; 64:14; 65:18; 65:25;

ONE'S [1] 60:16;	PASADENA [17] 2:1; 15:11;	9:10; 9:21; 10:8; 10:15; 11:1; 11:9;	PRETTY [7] 10:20; 19:20; 21:9;
ONE-SHOT [1] 89:14;	16:15; 67:8; 68:22; 69:8; 69:11;	11:23; 14:3; 14:13; 17:9; 17:11;	43:1; 47:11; 54:20; 62:21;
ONES [2] 21:8; 108:1;	70:23; 70:24; 71:25; 74:15; 75:4;	20:3; 20:5; 22:9; 23:16; 29:9;	PREVIOUS [1] 95:4;
ONGOING [1] 46:15;	76:10; 77:8; 78:25; 79:6; 83:5;	32:22; 32:25; 33:5; 33:6; 33:13;	PRIMARY [1] 27:18;
ONLY [17] 10:25; 21:14; 38:13;	PASI [1] 100:22;	42:5; 43:14; 45:8; 45:11; 49:10;	PRIME [1] 8:7;
39:4; 39:21; 47:23; 49:6; 51:8;	PASS [6] 5:4; 5:5; 5:7; 5:19; 5:20;	51:10; 51:21; 56:1; 58:9; 69:5;	PRIOR [4] 33:13; 41:22; 42:1;
53:24; 59:20; 61:5; 61:20; 62:24;	31:21;	69:6; 70:14; 73:8; 75:4; 77:2; 78:3;	95:25;
89:8; 98:17; 104:22; 105:4;	PASSED [1] 9:15;	78:7; 82:24; 86:9; 86:25; 91:25;	PRIORITY [1] 82:25;
ONTO [2] 3:10; 3:11;	PAST [16] 23:12; 25:2; 28:4; 30:8;	102:24; 105:8; 105:23; 105:24;	PRIVATE [1] 74:5;
OPEN [3] 17:5; 19:25; 103:19;	31:5; 31:14; 32:21; 37:12; 37:16;	106:7;	PROBABLY [48] 8:1; 8:2; 12:23;
OPEN-HOUSE [2] 14:22; 20:21;	38:9; 40:8; 40:13; 68:20; 82:7;	PLANNED [1] 105:11;	14:11; 15:19; 16:3; 18:16; 19:1;
OPERABLE [2] 23:1; 59:9;	87:6; 105:10;	PLANNING [10] 14:12; 14:21;	19:16; 19:18; 21:22; 22:7; 22:17;
OPERATE [7] 24:8; 29:20; 45:13;	PAYMENT [1] 95:8;	14:22; 18:14; 18:18; 22:9; 68:6;	22:18; 22:19; 22:21; 24:24; 26:4;
46:7; 55:4; 96:6; 98:14;	PDF [1] 4:2;	74:17; 84:24; 106:4;	29:1; 29:2; 32:13; 36:1; 36:4; 41:2;
OPERATED [1] 30:8;	PENDING [2] 5:22; 44:23;	PLANS [7] 4:14; 26:16; 43:14;	43:8; 43:9; 43:10; 45:23; 60:12;
OPERATING [10] 23:16; 29:16;	PEOPLE [12] 14:17; 14:18; 15:14;	69:11; 69:23; 70:8; 79:22;	60:15; 61:3; 69:17; 69:20; 72:10;
29:19; 29:23; 37:20; 38:11; 47:6;	15:17; 19:5; 21:3; 21:12; 21:15;	PLATE [1] 7:13;	72:11; 77:16; 81:19; 81:23; 82:1;
94:19; 94:25; 95:2;	21:15; 66:3; 97:15; 99:6;	PLAY [2] 10:8; 23:18;	92:13; 98:21; 102:15; 102:18;
OPERATION [5] 24:9; 25:9;	PER [3] 41:4; 45:10; 49:15;	PLAYED [1] 29:14;	104:23; 104:24; 107:18; 107:21;
43:16; 51:7; 51:16;	PERC [1] 61:8;	PLENTY [1] 35:18;	108:3;
OPERATIONS [2] 26:7; 74:14;	PERCEIVED [1] 9:12;	PLUME [8] 66:25; 67:12; 72:13;	PROBLEM [8] 20:17; 20:19;
OPINION [2] 39:24; 66:9;	PERCENT [1] 36:20;	73:3; 82:9; 82:18; 82:22; 87:11;	20:23; 59:23; 70:5; 80:10; 84:19;
OPPORTUNITIES [1] 71:11;	PERCEPTION [1] 16:21;	PLUS [2] 35:23; 76:19;	85:17;
OPPORTUNITY [3] 25:16;	PERCHLORATE [23] 47:10;	POINT [32] 2:25; 5:15; 5:17; 7:17;	PROBLEMS [7] 11:17; 20:13;
34:23; 71:20;	48:9; 48:10; 48:14; 49:3; 49:18;	18:19; 20:7; 20:10; 20:11; 23:21;	49:7; 49:11; 79:14; 84:11; 85:25;
OPTIMALLY [1] 81:25;	49:19; 50:2; 51:2; 52:3; 52:13;	25:14; 26:4; 28:18; 29:15; 30:15;	PROCEED [1] 58:14;
OPTIMIZE [1] 82:4;	52:24; 53:17; 53:21; 53:22; 54:11;	33:10; 36:23; 43:25; 45:23; 47:5;	PROCEEDINGS [1] 108:24;
OPTIMUM [1] 74:13;	55:2; 55:12; 57:12; 61:23; 63:20;	50:3; 59:15; 60:18; 64:8; 65:18;	PROCESS [21] 9:20; 10:12;
OPTIONS [2] 56:10; 66:23;	74:23; 95:24;	69:23; 70:13; 70:14; 70:18; 98:17;	11:15; 12:1; 13:4; 16:16; 28:12;
ORDER [4] 7:10; 8:7; 10:15; 78:23;	PERCHLORATE-REDUCING	106:20; 107:21; 108:3;	34:7; 37:5; 47:19; 71:4; 73:18;
ORGANISMS [1] 61:22;	[2] 48:7; 61:14;	POINTS [1] 54:3;	73:25; 80:21; 83:6; 84:23; 85:19;
ORIGINAL [4] 16:6; 24:21; 71:4;	PERFECT [2] 92:1; 104:13;	POLICY [1] 69:7;	85:19; 86:14; 94:3; 100:21;
77:2;	PERFORMANCE [8] 23:17;	POPPED [1] 11:6;	PROCESSING [1] 62:2;
ORIGINALLY [4] 51:5; 53:15;	32:17; 33:2; 36:23; 37:8; 37:19;	PORTION [1] 90:24;	PRODUCED [1] 49:1;
60:24; 75:20;	40:10; 43:4;	POSSIBILITY [1] 51:21;	PRODUCTION [2] 81:22; 88:11;
OSMOSIS [1] 57:4;	PERIOD [2] 11:22; 88:25;	POSSIBLE [11] 4:10; 65:6; 68:23;	PROGRAM [7] 32:15; 33:13;
OTHERWISE [4] 42:2; 84:1;	PERMANENT [3] 71:1; 107:24;	78:18; 78:20; 79:1; 79:12; 82:23;	39:18; 41:19; 43:24; 44:23; 45:23;
97:5; 105:16;	107:25;	84:16; 88:23; 104:16;	PROGRESSING [1] 96:17;
OU [13] 6:16; 11:1; 13:20; 14:4;	PERMISSION [1] 81:17;	POSSIBLY [7] 16:12; 24:6; 63:6;	PROJECT [4] 1:2; 2:19; 7:19;
17:7; 20:11; 61:8; 64:22; 66:20;	PERMIT [2] 69:12; 97:15;	64:14; 67:7; 72:25; 104:20;	74:17;
77:15; 83:5; 96:21; 107:19;	PERSON [3] 10:3; 99:9; 99:16;	POSTERS [1] 14:22;	PROJECTS [1] 5:13;
OU-3 [1] 5:2;	PERSONAL [1] 79:4;	POTENTIAL [5] 27:15; 52:23;	PROMISED [2] 73:24; 79:13;
OUGHT [1] 39:18;	PETE [1] 44:13;	85:25; 100:16; 101:4;	PROMISES [2] 71:19; 95:12;
OURS [2] 77:9; 77:10;	PETER [13] 1:15; 2:16; 5:4; 8:21;	POTENTIALLY [1] 71:9;	PROPERLY [1] 67:10;
OURSELVES [3] 2:6; 32:23; 62:11;	9:9; 10:24; 12:25; 13:17; 16:9;	POWER [2] 21:3; 70:25;	PROPOSAL [17] 38:19; 44:17;
OUTSTANDING [1] 43:23;	65:19; 67:3; 67:6; 106:21;	PPB [4] 49:19; 51:19; 54:1; 54:11;	71:4; 71:23; 71:24; 71:25; 75:14;
OVERALL [5] 16:8; 20:4; 38:24;	PHANTOM [1] 16:5;	PPM [1] 54:16;	75:22; 78:6; 78:8; 79:6; 79:8;
60:20; 82:24;	PHASE [1] 24:9;	PRE-DRAFT [1] 9:6;	79:15; 79:16; 80:3; 80:19; 84:16;
OVERVIEW [4] 2:19; 2:22; 7:20;	PHEBE [3] 1:9; 2:11; 47:22;	PRE-PUBLIC [1] 103:23;	PROPOSALS [1] 71:18;
8:15;	PHOEBE [1] 35:13;	PREDRAFT [1] 4:20;	PROPOSE [2] 38:16; 46:8;
OVERWHELM [1] 91:23;	PHONE [1] 94:24;	PREFER [4] 83:7; 83:14; 98:3;	PROPOSED [21] 4:21; 8:24; 9:8;
OWN [4] 72:12; 81:17; 81:23; 82:5;	PICTURE [1] 91:16;	103:22;	9:10; 9:21; 10:8; 10:15; 11:1; 11:9;
=====	PIGGYBACK [1] 70:21;	PREFERENCE [2] 106:15; 106:17;	11:23; 14:13; 20:5; 26:16; 42:5;
- P -	PILOT [42] 4:9; 4:11; 23:2; 23:6;	PREFERENCES [2] 25:5; 37:18;	45:14; 49:9; 61:7; 64:22; 73:15;
=====	23:13; 24:25; 25:6; 25:8; 25:23;	PRELIMINARY [4] 4:13; 59:4;	86:9; 86:25;
PACKED [6] 60:14; 60:19; 60:25;	27:16; 27:21; 31:16; 33:4; 33:5;	92:18; 104:25;	PROPOSING [2] 66:12; 102:2;
61:5; 61:21; 62:7;	35:21; 36:9; 36:21; 36:24; 37:6;	PREPARED [1] 69:12;	PROPRIETARY [1] 61:9;
PAD [1] 91:21;	37:25; 38:15; 39:10; 39:17; 40:1;	PREPLANNING [1] 18:23;	PROPULSION [1] 1:3;
PAPERWORK [1] 80:23;	40:15; 42:14; 46:19; 47:23; 55:20;	PRESENT [3] 7:21; 69:19; 108:4;	PROTECT [2] 70:12; 91:15;
PARALLEL [1] 77:7;	55:23; 57:9; 57:10; 57:25; 58:20;	PRESENTATION [9] 17:10;	PROTOCOL [1] 42:7;
PARAMETERS [1] 43:18;	61:7; 63:12; 64:19; 65:3; 65:4;	18:1; 18:7; 18:12; 20:21; 21:5;	PROVIDE [3] 21:1; 21:2; 73:21;
PART [8] 8:11; 18:8; 32:13; 53:7;	69:16; 96:5; 97:9;	33:12; 104:23; 107:9;	PROVIDING [4] 41:10; 68:23;
67:9; 67:15; 73:7; 84:13;	PLACE [15] 15:18; 26:14; 38:24;	PRESENTATIONS [1] 14:25;	73:19; 80:17;
PARTIAL [1] 95:7;	39:9; 54:22; 67:10; 71:8; 77:22;	PRESENTED [1] 37:12;	PUBLIC [34] 3:14; 3:24; 13:5;
PARTICIPATE [2] 15:8; 15:12;	78:19; 80:21; 81:4; 83:23; 87:3;	PRESS [2] 79:10; 81:14;	13:16; 14:1; 14:4; 14:14; 16:21;
PARTICULAR [2] 44:23; 62:13;	87:10; 87:24;	PRESSURE [2] 41:4; 41:5;	16:22; 17:2; 17:6; 19:2; 19:6; 20:5;
PARTIES [1] 85:20;	PLACEMENT [1] 89:22;	PRESSURES [1] 27:8;	20:15; 20:15; 21:19; 21:20; 22:2;
PARTS [1] 49:15;	PLAN [51] 4:21; 7:16; 8:24; 9:8;	PRESUME [1] 97:10;	83:8; 83:9; 86:1; 86:9; 86:14;

PULL [1] 60:13;	31:15; 32:21; 35:5; 36:12; 36:24;	REPORTED [1] 1:25;	28:13; 28:15; 34:2; 34:4; 41:24;
PULLING [3] 49:23; 50:11; 51:4;	37:24; 38:17; 40:7; 40:14; 40:21;	REPORTER [1] 6:9;	42:5; 42:12; 42:15; 44:10; 44:25;
PUMFORD [1] 47:2;	47:3; 50:6; 50:19; 51:6; 52:1;	REPORTING [1] 40:12;	45:6; 45:13; 45:17; 46:14; 46:18;
PUMFORD'S [1] 57:24;	56:21; 67:24; 70:17; 83:21; 84:9;	REPORTS [3] 32:9; 37:14; 101:17;	47:20; 55:25; 56:7; 56:18; 56:24;
PUMP [5] 77:3; 82:16; 82:17;	86:17; 88:9; 90:8; 90:19; 96:19;	REPOSITORIES [1] 3:16;	57:6; 58:7; 58:16; 58:19; 59:7;
82:17; 92:3;	98:18; 100:19; 100:25;	REPRESENTATIVES [1] 16:10;	65:4; 65:17; 65:20; 66:15; 68:1;
PUMPING [9] 5:1; 48:4; 72:22;	REASON [6] 10:5; 31:19; 37:7;	REQUESTED [2] 66:2; 68:20;	69:10; 70:21; 73:2; 73:11; 75:13;
72:22; 76:21; 77:4; 78:1; 80:11;	62:12; 86:3; 105:4;	REQUESTS [1] 4:1;	76:9; 76:24; 78:9; 79:4; 80:2;
82:12;	REASONABLE [1] 94:21;	REQUIREMENT [2] 11:3; 23:14;	80:14; 81:5; 82:2; 83:3; 83:12;
PURVIEW [1] 98:9;	REASONABLY [1] 43:24;	REQUIREMENTS [6] 10:16;	84:2; 84:7; 85:10; 87:15; 87:18;
PUSH [3] 19:8; 70:11; 87:9;	REASONS [3] 7:3; 37:8; 90:10;	19:4; 21:1; 51:10; 58:23; 59:8;	87:21; 88:3; 88:5; 89:23; 90:6;
PUSHING [3] 69:14; 80:7; 84:7;	REBOUND [1] 30:10;	RESEARCHING [1] 99:22;	90:22; 91:20; 91:24; 93:2; 93:5;
PUTTING [11] 49:16; 49:24;	RECEIVE [1] 95:7;	RESOLUTION [1] 58:18;	93:14; 93:18; 93:20; 93:25; 94:5;
50:11; 51:3; 51:4; 56:19; 71:9;	RECEIVED [6] 3:2; 47:1; 47:7;	RESOURCES [1] 25:10;	94:7; 94:9; 94:18; 95:10; 95:16;
71:12; 74:20; 74:24; 82:5;	95:3; 97:8; 97:10;	REST [1] 12:25;	96:13; 96:17; 96:24; 97:3; 99:1;
=====	RECEIVING [2] 37:13; 108:2;	RESULT [1] 39:9;	99:11; 99:14; 99:17; 99:25; 101:25;
- Q -	RECIPE [1] 36:13;	RESULTS [17] 31:17; 31:21;	102:12; 102:21; 103:10; 103:15;
=====	RECIRCULATING [1] 52:19;	33:25; 35:8; 38:11; 41:20; 43:19;	104:4; 104:7; 104:10; 104:12;
QUALITY [1] 16:6;	RECIRCULATION [1] 53:20;	47:10; 51:7; 51:13; 55:20; 57:9;	104:16; 105:21; 106:10; 106:12;
QUARTER [5] 94:12; 94:14;	RECOGNIZE [2] 85:7; 91:16;	61:11; 70:17; 88:10; 100:8; 104:24;	106:24; 107:2; 107:10; 107:17;
95:3; 95:5; 95:8;	RECOMMEND [1] 102:21;	REVERSE [1] 57:4;	107:24; 108:16; 108:20;
QUARTERLY [15] 81:5; 31:11;	RECOMMENDATION [3]	REVIEW [13] 12:21; 14:8; 23:15;	ROBUST [1] 63:3;
31:17; 32:16; 32:22; 33:1; 35:7;	71:22; 84:6; 85:2;	25:16; 25:23; 26:9; 27:20; 28:8;	ROBUSTNESS [3] 52:5; 52:17;
37:21; 37:25; 38:4; 38:5; 38:10;	RECOMMENDATIONS [5] 3:7;	87:4; 87:6; 89:8; 95:1; 101:18;	61:5;
39:21; 46:11; 95:3;	3:22; 7:21; 45:18; 78:24;	REVIEWING [2] 24:25; 28:9;	ROD [13] 20:6; 25:11; 26:2;
QUARTERS [1] 95:4;	RECORD [10] 3:1; 3:2; 3:5; 3:8;	REVIEWS [1] 27:18;	26:22; 26:24; 27:1; 36:17; 83:15;
QUESTIONS [16] 8:14; 15:15;	3:10; 3:12; 3:24; 7:22; 14:3; 26:14;	REVISED [1] 10:18;	83:20; 83:23; 83:24; 86:25; 89:25;
15:16; 16:1; 16:8; 16:10; 17:4;	REDO [1] 86:6;	REVISING [1] 10:15;	ROLLING [3] 26:6; 60:17; 78:12;
17:16; 17:19; 17:23; 21:13; 21:23;	REDUCE [1] 57:22;	REWRITE [1] 88:14;	ROOM [3] 2:5; 4:18; 11:18;
65:3; 65:20; 83:4; 108:15;	REDUCTION [2] 49:3; 50:24;	RICH [1] 31:20;	ROUND [2] 38:13; 45:2;
QUICK [1] 44:13;	REFLECT [1] 39:25;	RICHARD [8] 1:11; 1:16; 2:7;	ROW [1] 104:2;
QUICKLY [2] 70:19; 99:20;	REGARD [2] 39:12; 52:5;	2:13; 2:20; 33:15; 52:4; 100:7;	RPM [15] 2:13; 2:16; 15:6; 22:5;
QUITE [2] 5:24; 12:17;	REGION [1] 99:10;	RIPPERDA [114] 1:14; 2:10;	22:6; 31:22; 73:14; 80:7; 92:16;
QUO [2] 45:10; 46:4;	REGIONAL [9] 2:15; 16:7; 47:7;	2:10; 5:18; 6:11; 8:18; 9:24; 12:10;	102:2; 102:20; 102:25; 103:7;
=====	49:10; 56:18; 58:1; 58:13; 59:7;	12:17; 14:21; 14:25; 21:6; 23:24;	103:22; 104:17;
- R -	98:10;	25:6; 25:22; 25:25; 26:2; 26:7;	RPMS [6] 11:24; 15:3; 26:12;
=====	REGULAR [5] 27:20; 32:17;	27:1; 27:4; 27:6; 27:10; 27:18;	45:15; 76:5; 93:9;
RAB [1] 20:20;	37:17; 46:11; 105:3;	34:25; 35:5; 35:7; 35:12; 35:16;	RUN [4] 22:12; 25:6; 102:16;
RAISE [1] 98:16;	REGULATORS [3] 25:14; 71:18;	35:18; 35:20; 36:9; 36:12; 36:16;	102:20;
RAMP [1] 25:8;	92:21;	40:12; 40:17; 41:1; 41:12; 42:11;	RUNNING [5] 40:19; 40:21;
RAMPING [1] 27:15;	REIMBURSEMENT [2] 94:14;	45:1; 56:12; 56:16; 56:21; 57:3;	41:3; 53:20; 61:2;
RANCHO [1] 62:14;	94:19;	57:19; 57:22; 58:6; 58:8; 58:17;	RUNS [3] 88:10; 88:18; 92:25;
RANGE [3] 19:19; 49:20; 96:6;	REINJECT [1] 72:16;	60:19; 75:8; 75:10; 76:18; 76:23;	RUSHING [1] 85:17;
RAPIDLY [1] 6:20;	REINJECTION [4] 51:20; 59:8;	76:25; 78:2; 78:6; 80:9; 80:15;	RWQCB-LA [1] 1:8;
RATES [3] 61:3; 73:5; 93:1;	64:21; 66:22;	81:24; 83:6; 83:14; 83:17; 84:1;	=====
RATHER [19] 7:13; 17:2; 34:14;	RELATIVELY [1] 44:17;	85:12; 85:16; 86:20; 88:7; 88:14;	- S -
37:21; 64:2; 69:22; 75:4; 83:18;	REMEDIAL [6] 1:2; 25:12;	88:17; 88:20; 89:15; 89:17; 89:20;	=====
83:19; 88:8; 88:8; 89:16; 89:17;	25:17; 71:9; 73:6; 75:3;	89:24; 90:3; 90:14; 90:17; 90:19;	SAFETY [1] 4:14;
103:23; 105:21; 105:23; 106:4;	REMEDIATION [4] 62:25;	91:11; 91:21; 92:20; 92:23; 93:4;	SAKE [1] 86:19;
106:7; 106:14;	63:20; 80:21; 91:6;	93:11; 93:13; 93:15; 93:24; 94:4;	SALE [1] 55:22;
RATIONALE [1] 34:2;	REMEDIES [2] 64:22; 64:22;	94:6; 94:8; 94:16; 94:25; 95:13;	SAME [32] 3:9; 7:24; 8:4; 16:12;
RAW [2] 34:14; 35:7;	REMEMBER [2] 24:19; 42:25;	96:15; 99:2; 99:7; 102:13; 102:16;	17:7; 23:10; 28:11; 41:16; 41:18;
RAYMOND [6] 15:9; 16:14;	REMIN [1] 34:5;	103:21; 104:1; 104:5; 104:17;	42:10; 49:22; 51:4; 52:21; 60:2;
26:17; 74:15; 95:18; 95:20;	REMOVAL [15] 53:9; 69:25;	104:20; 105:23; 106:3; 106:7;	61:16; 62:10; 62:19; 63:7; 63:25;
RCRA [1] 99:4;	70:11; 77:15; 77:20; 83:7; 84:7;	106:17; 107:4; 107:7; 107:13;	64:14; 67:5; 76:18; 77:7; 80:25;
REACHED [1] 94:11;	84:22; 85:11; 85:13; 85:18; 85:22;	107:15; 108:6; 108:9; 108:11;	84:11; 95:23; 95:23; 98:20; 98:24;
REACTION [1] 48:14;	88:3; 88:22; 89:20;	RISK [1] 25:7;	98:24; 105:8; 107:7;
REACTOR [13] 46:21; 47:21;	REMOVE [1] 48:16;	RIVER [1] 74:20;	SAMPLES [1] 45:3;
48:2; 58:19; 60:14; 60:19; 60:21;	REMOVED [1] 48:17;	RIVERSIDE [2] 61:9; 62:20;	SAMPLING [2] 42:7; 66:13;
60:25; 61:5; 61:16; 61:17; 61:20;	REMOVES [1] 48:24;	ROBLES [145] 1:15; 2:5; 2:16;	SATISFACTION [1] 96:18;
61:21;	REMOVING [1] 82:8;	2:16; 3:4; 5:6; 5:10; 6:1; 6:24; 7:19;	SATURDAY [3] 14:18; 18:5; 23:8;
REACTORS [1] 61:2;	RENEWAL [3] 76:6; 76:10; 76:15;	8:2; 8:14; 8:22; 9:3; 9:16; 11:9;	SAVE [1] 104:1;
READY [5] 28:10; 42:23; 76:21;	REPLACE [3] 67:8; 68:24; 71:12;	11:19; 12:12; 12:16; 13:2; 13:8;	SAW [1] 53:25;
92:18; 96:21;	REPLACEMENT [2] 72:18; 89:14;	13:10; 13:12; 13:18; 13:21; 14:24;	SAYING [9] 27:13; 41:12; 41:13;
REAL [1] 32:22;	REPORT [18] 32:1; 32:6; 34:12;	15:1; 15:7; 16:19; 17:11; 17:13;	43:4; 47:8; 57:2; 57:3; 57:20; 106:12;
REALIZE [1] 41:9;	34:18; 34:24; 38:4; 38:6; 38:10;	18:23; 19:1; 20:12; 20:18; 20:24;	SCALE [3] 52:21; 62:18; 62:20;
REALLY [37] 5:8; 5:23; 7:15; 9:6;	41:2; 41:10; 41:13; 41:15; 43:15;	21:11; 22:14; 22:21; 25:24; 26:1;	SCAN [1] 3:10;
21:7; 22:15; 23:14; 27:1; 28:4;	53:12; 66:8; 90:4; 92:21; 97:19;	26:11; 27:3; 27:5; 27:9; 27:17;	SCENARIOS [3] 67:2; 72:22;

SCHEDULE [14] 6:4; 7:1; 12:25; 18:20; 20:4; 28:13; 28:17; 29:4; 29:5; 29:15; 30:5; 31:2; 42:20; 77:11;	100:20;	11:22; 12:1; 12:7; 28:7; 29:9; 29:19; 53:13; 74:24; 76:21; 77:4; 79:20;	SULFATE [18] 48:10; 48:11; 49:8; 49:22; 50:5; 50:8; 50:15; 50:24; 51:1; 51:3; 51:10; 51:17; 55:15; 57:15; 57:23; 58:18; 59:17; 59:21;
SCHEDULES [2] 33:9; 72:23;	SIT [2] 60:7; 72:4;	START-UP [1] 29:6;	SUM [1] 95:5;
SCHEDULING [1] 13:5;	SITE [20] 5:1; 13:21; 23:7; 28:25; 29:1; 30:2; 54:8; 61:12; 63:19; 64:4; 65:1; 68:14; 71:8; 72:16; 74:21; 75:12; 82:24; 91:4; 91:25; 92:4;	STARTED [6] 40:15; 47:13; 52:11; 52:15; 53:25; 70:16;	SUMMARIZATION [1] 34:11;
SCOOP [1] 61:18;	SITES [3] 29:25; 30:3; 37:20;	STARTING [5] 2:6; 6:20; 29:3; 46:20; 77:3;	SUMMARIZING [1] 34:7;
SCOPE [2] 73:17; 86:8;	SITS [1] 42:2;	STARTS [1] 87:18;	SUMMARY [5] 35:1; 35:16; 35:22; 36:1; 38:3;
SCREENED [2] 81:24; 82:13;	SITU [10] 49:18; 62:24; 62:25; 63:8; 63:12; 63:15; 63:19; 63:19; 64:1; 82:23;	STATE [5] 13:15; 18:9; 21:6; 99:21; 99:23;	SUMMER [2] 77:25; 83:22;
SCREENING [1] 100:21;	SITUATION [3] 38:25; 50:20; 83:18;	STATED [1] 11:12;	SUPERFUND [1] 6:4;
SCREENS [2] 30:17; 82:13;	SIX [7] 25:19; 54:16; 71:1; 76:25; 77:22; 77:25; 82:14;	STATUS [6] 45:10; 46:4; 46:20; 65:3; 73:12; 93:11;	SUPERIOR [1] 66:6;
SECO [2] 85:4; 92:6;	SLIGHT [2] 23:11; 25:7;	STATUTE [1] 98:9;	SUPERVISOR [1] 6:15;
SECOND [9] 4:6; 60:15; 61:15; 80:24; 102:2; 102:22; 103:11; 103:15; 105:14;	SLOW [2] 88:20; 88:21;	STAY [2] 15:23; 100:3;	SUPPORT [2] 16:16; 74:11;
SECTION [1] 93:23;	SLOWER [1] 83:20;	STAYS [1] 100:2;	SUPPORTING [1] 67:6;
SECTIONS [1] 14:25;	SLURRY [1] 63:17;	STEP [1] 90:11;	SUPPOSED [7] 3:20; 24:20; 46:10; 71:24; 73:8; 77:10; 79:17;
SEEKING [2] 81:7; 81:12;	SMALL [1] 60:24;	STEPS [2] 89:10; 90:11;	SURE [50] 3:17; 7:24; 9:21; 11:16; 13:10; 14:2; 16:24; 18:21; 19:7; 21:2; 22:9; 24:12; 24:20; 25:9; 28:18; 30:7; 35:3; 35:9; 37:3; 38:18; 38:20; 40:9; 40:16; 41:9; 42:20; 43:1; 44:15; 45:4; 46:17; 46:25; 53:24; 58:1; 58:12; 63:18; 64:15; 72:20; 73:23; 78:19; 92:12; 94:2; 96:9; 97:8; 97:21; 98:13; 101:8; 101:8; 101:11; 104:3; 106:9; 107:6;
SEEMS [4] 16:17; 72:13; 83:20; 84:16;	SNEAK [1] 85:23;	STILL [30] 8:5; 8:6; 8:7; 11:24; 17:9; 36:21; 37:6; 39:6; 43:23; 51:1; 51:24; 57:22; 60:21; 65:14; 72:1; 72:2; 75:18; 79:7; 79:8; 80:10; 81:16; 85:15; 85:16; 90:25; 93:12; 93:14; 93:20; 93:21; 95:19; 99:21;	SURFACE [2] 58:9; 91:18;
SEEN [15] 10:3; 12:18; 21:8; 21:12; 27:23; 29:13; 30:19; 42:19; 47:23; 47:24; 57:13; 72:1; 75:18; 87:5; 89:1;	SOIL [19] 4:9; 17:20; 23:1; 31:4; 31:5; 31:10; 31:16; 31:17; 32:13; 32:15; 33:17; 34:7; 38:10; 38:11; 38:23; 38:24; 44:18; 45:3; 46:11;	STOP [3] 45:20; 45:21; 79:8;	SURROUNDING [1] 84:8;
SELECTING [1] 75:12;	SOMEBODY'S [1] 19:20;	STOPPED [3] 93:16; 94:2; 95:13;	SURVEY [1] 100:9;
SELECTION [5] 64:13; 64:25; 69:17; 69:18; 74:12;	SOMEHOW [3] 43:12; 64:4; 80:10;	STOPS [1] 48:14;	SURVEY [1] 52:17;
SELFISHLY [1] 103:22;	SOMEWHAT [2] 62:18; 103:21;	STRAIN [1] 62:13;	SUSPENDED [1] 44:23;
SEMIANNUAL [1] 38:13;	SOON [8] 14:13; 78:11; 78:18; 78:19; 78:22; 79:12; 84:16; 94:10;	STREAMLINE [1] 28:12;	SUSPENDING [1] 45:6;
SEND [2] 11:24; 26:5;	SOONER [1] 88:8;	STREAMLINED [1] 7:9;	SVE [11] 17:20; 23:6; 23:19; 28:14; 28:16; 32:14; 33:4; 39:10; 39:14; 42:14; 83:11;
SENDING [3] 10:18; 31:9; 63:4;	SORRY [3] 6:12; 9:3; 12:16;	STRINGENT [1] 59:8;	SYSTEM [44] 23:25; 24:7; 24:17; 26:13; 29:13; 29:19; 29:23; 32:17; 33:10; 33:22; 38:12; 39:14; 40:10; 42:24; 46:6; 47:9; 49:3; 50:3; 52:5; 52:15; 52:18; 52:20; 53:15; 53:21; 55:1; 55:3; 55:6; 55:12; 59:17; 60:13; 60:15; 62:1; 62:14; 63:4; 63:5; 66:20; 69:17; 79:2; 80:21; 81:4; 88:15; 89:25; 92:4; 98:12;
SENSE [4] 11:17; 33:15; 34:3; 39:21;	SORT [1] 59:16;	STRUCK [1] 73:24;	SYSTEMS [4] 24:8; 26:14; 68:11; 69:19;
SENSITIVITY [1] 84:13;	SOUND [2] 18:19; 108:14;	STUDIES [5] 31:21; 38:15; 61:12; 63:8; 97:9;	=====
SENT [7] 9:5; 10:6; 10:21; 25:3; 25:4; 26:17; 97:10;	SOUNDED [1] 45:20;	STUDY [41] 23:2; 23:6; 23:13; 25:1; 25:23; 27:16; 27:21; 29:21; 31:16; 32:14; 33:4; 33:5; 35:21; 36:10; 36:21; 36:24; 37:6; 37:25; 38:23; 39:18; 40:1; 40:15; 46:19; 51:13; 57:9; 57:10; 57:25; 58:20; 60:4; 60:4; 61:7; 62:23; 63:12; 65:3; 65:4; 69:16; 69:22; 70:2; 70:4; 70:7; 70:9;	- T -
SEPARATE [4] 22:5; 22:11; 24:3; 24:10;	SOUNDS [3] 57:22; 76:20; 103:21;	STUFF [9] 28:10; 40:18; 40:24; 41:14; 64:10; 81:6; 87:13; 107:20; 108:7;	=====
SEPTEMBER [3] 27:12; 76:8; 76:9;	SOURCE [1] 82:24;	SUBJECT [1] 40:4;	TABLE [1] 31:21;
SERVICE [2] 2:8; 6:14;	SOURCES [3] 100:9; 100:9; 101:4;	SUBMIT [5] 43:10; 69:11; 71:3; 94:25; 96:2;	TAKE [16] 5:15; 15:15; 22:7; 23:5; 36:2; 37:21; 38:23; 47:18; 65:7; 86:10; 88:10; 88:25; 89:1; 89:13; 91:12; 91:17;
SETTLEMENT [1] 95:6;	SPACE [1] 19:3;	SUBMITTED [5] 4:13; 9:10; 23:9; 23:12; 95:2;	TAKEN [6] 22:10; 41:4; 43:21; 59:16; 79:17; 100:1;
SEVERAL [6] 49:7; 51:5; 66:18; 69:18; 77:5; 82:13;	SPEAK [2] 39:11; 108:12;	SUBMITTING [1] 73:9;	TAKERS [1] 35:15;
SHOCKED [1] 99:18;	SPECIAL [1] 20:25;	SUBSEQUENT [2] 47:8; 103:24;	TAKES [2] 29:20; 100:23;
SHOCKING [1] 100:5;	SPECIALLY [1] 3:8;	SUBSTRATE [2] 52:24; 53:1;	TAKING [10] 4:8; 4:14; 4:15; 34:14; 45:2; 48:3; 53:16; 55:20; 59:20; 68:3;
SHOOT [1] 106:20;	SPECIES [9] 84:20; 85:23; 88:6; 90:14; 91:3; 91:4; 91:7; 91:14; 91:15; 16:4; 68:16;	SUCCESS [4] 29:24; 62:22; 63:3; 63:21;	TALK [24] 4:23; 7:22; 8:17; 9:9; 13:23; 15:2; 20:14; 28:13; 31:7; 32:12; 43:15; 43:17; 56:25; 64:17; 67:6; 70:24; 72:5; 80:4; 81:9;
SHOOTING [2] 66:25; 97:3;	SPECIFIC [5] 7:6; 7:12; 9:18;	SUCCESSFUL [3] 27:24; 62:6; 62:10;	
SHORT [2] 69:6; 102:9;	SPECIFICALLY [5] 16:1; 23:5; 66:24; 67:1; 82:10;	SUCCESSFULLY [1] 62:18;	
SHORT-TIME [1] 50:24;	SPECIFICS [1] 8:16;	SUCH [6] 32:25; 40:5; 45:11; 51:15; 57:12; 95:16;	
SHORTER [1] 98:22;	SPEED [3] 66:11; 84:23; 85:18;	SUCKING [1] 40:24;	
SHOW [11] 5:14; 5:16; 6:3; 9:7; 16:16; 16:22; 17:21; 21:6; 22:8; 70:17; 73:14;	SPEEDS [1] 85:19;	SUFFICIENT [2] 32:7; 90:1;	
SHOWED [1] 62:24;	SPENDING [2] 5:12; 65:9;	SUGGEST [2] 41:15; 105:10;	
SHOWING [1] 5:12;	SPENT [1] 27:10;	SUGGESTED [1] 69:13;	
SHOWN [1] 11:14;	SPIKE [1] 53:20;	SUITABLE [1] 58:17;	
SHUT [7] 30:10; 30:15; 33:10; 52:10; 83:1; 83:2; 98:12;	SPIKES [1] 52:6;		
SHUTTING [1] 60:6;	SPIKING [2] 50:17; 50:22;		
SIGNIFICANT [1] 10:20;	SPILL [1] 105:9;		
SILVER [5] 58:22; 59:13; 65:15; 65:16; 65:17;	SPOKEN [1] 99:13;		
SIMILAR [1] 60:20;	SPRINGTIME [2] 64:16; 64:23;		
SIMPLE [1] 81:10;	STAGE [2] 22:19; 26:22;		
SIMPLY [1] 39:5;	STAKEHOLDERS [4] 16:13; 16:19; 26:20; 86:15;		
SINCE [19] 6:19; 7:15; 21:19; 23:13; 29:2; 32:21; 36:20; 37:5; 37:12; 38:14; 44:16; 46:5; 46:6; 47:6; 60:9; 62:5; 68:16; 88:23;	STAND [1] 17:3;		
	STANDING [1] 16:22;		
	STANDPOINT [4] 8:6; 8:8; 16:21; 42:8;		
	START [14] 3:1; 8:21; 8:22;		

<p>TALKED [12] 16:13; 22:16; 23:3; 28:3; 49:7; 50:21; 72:9; 74:10; 83:5; 93:8; 98:11; 100:12;</p> <p>TALKING [6] 19:5; 33:17; 42:13; 54:15; 56:13; 102:5;</p> <p>TANK [1] 91:21;</p> <p>TANKS [1] 90:20;</p> <p>TARGET [1] 82:11;</p> <p>TASK [1] 8:7;</p> <p>TECH [8] 3:2; 7:5; 7:11; 7:23; 15:3; 15:6; 15:7; 108:2;</p> <p>TECH'S [1] 8:9;</p> <p>TECHLAW [2] 1:9; 2:11;</p> <p>TECHNICALLY [1] 52:21;</p> <p>TECHNOLOGIES [4] 56:2; 64:25; 65:1; 65:8;</p> <p>TECHNOLOGY [8] 59:13; 59:18; 63:25; 65:14; 71:9; 72:15; 91:5; 98:24;</p> <p>TELECON [9] 7:23; 92:10; 92:14; 102:23; 103:2; 103:6; 103:9; 103:10; 106:24;</p> <p>TELL [12] 18:17; 24:13; 28:19; 32:8; 63:22; 69:10; 81:5; 84:4; 87:16; 90:12; 101:15; 104:14;</p> <p>TELLING [2] 17:3; 87:11;</p> <p>TENTATIVELY [1] 13:5;</p> <p>TERMS [1] 94:14;</p> <p>TERRIBLE [1] 91:9;</p> <p>TEST [8] 4:9; 4:11; 52:1; 52:2; 55:13; 55:15; 55:23; 98:21;</p> <p>TESTED [1] 59:18;</p> <p>TESTING [5] 61:4; 61:4; 61:10; 61:20; 61:25;</p> <p>TESTS [4] 55:21; 62:20; 64:19; 96:5;</p> <p>TEXAS [3] 63:14; 63:19; 64:15;</p> <p>THAN [25] 6:21; 7:13; 17:2; 17:6; 34:14; 36:19; 37:21; 64:2; 66:6; 66:7; 69:22; 75:4; 83:10; 83:20; 84:17; 86:10; 87:9; 88:8; 89:9; 89:16; 98:3; 103:24; 105:2; 106:4; 106:15;</p> <p>THAN'S [1] 83:2;</p> <p>THANK [2] 108:19; 108:23;</p> <p>THANKS [1] 46:16;</p> <p>THEMSELVES [4] 6:8; 38:15; 52:17; 54:9;</p> <p>THEORETICALLY [1] 105:7;</p> <p>THERE'LL [1] 21:21;</p> <p>THERE'S [27] 3:25; 5:21; 17:16; 23:14; 24:16; 24:18; 24:18; 35:10; 41:18; 46:7; 48:18; 49:5; 51:20; 55:1; 63:3; 68:1; 68:10; 75:8; 76:17; 77:9; 89:4; 92:12; 93:6; 101:3; 102:3; 104:22; 104:24;</p> <p>THICK [1] 87:7;</p> <p>THING [22] 4:4; 4:6; 6:25; 11:6; 22:12; 26:5; 40:2; 49:22; 52:16; 53:18; 54:19; 60:2; 63:9; 66:5; 75:5; 75:5; 78:20; 84:18; 86:21; 94:18; 104:22; 105:22;</p> <p>THINGS [27] 2:22; 5:22; 6:20; 7:8; 9:20; 10:13; 11:19; 13:23; 15:2; 21:24; 23:17; 25:6; 35:4; 38:21; 51:8; 52:9; 56:14; 57:14; 58:10; 64:11; 66:18; 70:18; 73:13; 74:10; 81:15; 84:22; 86:8;</p> <p>THINKING [6] 75:21; 89:3; 90:7;</p>	<p>90:10; 102:6; 105:5;</p> <p>THIRD [5] 61:19; 94:12; 95:3; 95:5; 95:8;</p> <p>THOMPSON [1] 99:10;</p> <p>THOUGH [5] 9:17; 11:12; 24:3; 56:19; 66:5;</p> <p>THOUGHT [8] 39:3; 58:21; 61:24; 71:4; 75:23; 79:19; 84:14; 84:17;</p> <p>THREATENED [1] 70:13;</p> <p>THREE [6] 32:10; 52:10; 55:20; 61:2; 70:19; 78:10;</p> <p>THROUGH [49] 3:16; 10:12; 12:25; 13:4; 14:3; 17:2; 24:21; 27:23; 30:24; 34:20; 39:10; 45:22; 47:14; 48:4; 48:8; 48:15; 48:15; 49:6; 51:15; 52:19; 62:23; 62:23; 63:5; 64:1; 66:17; 68:4; 69:24; 70:2; 70:3; 70:4; 70:8; 70:8; 70:9; 70:11; 76:1; 77:18; 86:5; 86:5; 86:8; 86:18; 87:5; 88:24; 89:8; 89:10; 89:11; 90:8; 90:8; 92:12; 100:20;</p> <p>THROUGHOUT [1] 51:13;</p> <p>THURSDAY [5] 92:14; 102:3; 102:4; 102:22; 103:12;</p> <p>THURSDAY-FRIDAY [3] 13:6; 104:5; 106:15;</p> <p>THURSDAYS [1] 103:16;</p> <p>THUS [2] 34:10; 55:11;</p> <p>TICKING [2] 12:5; 79:25;</p> <p>TIED [1] 81:12;</p> <p>TIME [57] 3:9; 14:6; 14:8; 18:1; 18:13; 19:21; 19:24; 22:20; 22:22; 27:17; 28:8; 28:11; 32:7; 36:17; 36:21; 40:11; 41:2; 41:18; 42:10; 43:19; 44:2; 44:18; 44:20; 45:11; 47:12; 51:16; 52:13; 57:25; 58:4; 60:10; 62:10; 63:7; 63:11; 65:9; 67:5; 69:25; 75:14; 76:14; 77:7; 77:12; 77:16; 77:17; 78:21; 80:25; 86:12; 87:10; 87:25; 88:7; 90:11; 96:20; 100:23; 102:8; 102:9; 102:23; 102:25; 104:13; 107:21;</p> <p>TIMES [2] 19:22; 22:16;</p> <p>TIMETABLE [4] 6:4; 75:10; 79:4; 101:22;</p> <p>TINE [1] 28:7;</p> <p>TIRED [1] 21:16;</p> <p>TODAY [1] 97:18;</p> <p>TOGETHER [7] 13:16; 22:8; 41:16; 75:22; 79:15; 95:5; 103:3;</p> <p>TOKEN [1] 8:4;</p> <p>TOLD [3] 10:19; 31:14; 97:18;</p> <p>TON [1] 32:9;</p> <p>TONE [2] 73:1; 73:6;</p> <p>TOOK [1] 56:20;</p> <p>TOP [1] 82:18;</p> <p>TOUCHED [1] 40:4;</p> <p>TOUGH [1] 25:20;</p> <p>TOUGHER [2] 58:11; 83:17;</p> <p>TOWARDS [4] 66:25; 73:4; 85:18; 86:4;</p> <p>TOWN [1] 19:21;</p> <p>TRACK [1] 39:4;</p> <p>TRAILER [1] 23:8;</p> <p>TRAIN [1] 71:10;</p> <p>TRANSITION [1] 7:5;</p>	<p>TRAVELING [1] 106:13;</p> <p>TREAT [4] 52:2; 56:8; 82:17; 92:4;</p> <p>TREATED [1] 54:6;</p> <p>TREATING [7] 5:2; 48:21; 50:5; 53:23; 53:24; 55:2; 82:23;</p> <p>TREATMENT [5] 49:12; 64:2; 72:15; 88:15; 91:25;</p> <p>TREE [1] 82:20;</p> <p>TRENCH [5] 63:18; 63:23; 64:2; 64:4; 64:6;</p> <p>TRIED [3] 50:13; 55:8; 56:21;</p> <p>TRIGGER [1] 79:5;</p> <p>TROUBLE [1] 27:15;</p> <p>TRUE [2] 51:7; 93:5;</p> <p>TRULY [1] 54:12;</p> <p>TRY [9] 29:17; 29:18; 56:22; 59:10; 60:9; 60:11; 62:7; 68:25; 99:22;</p> <p>TRYING [23] 7:4; 7:14; 8:24; 24:22; 30:6; 30:13; 30:19; 30:25; 37:1; 38:8; 55:21; 55:24; 56:8; 64:23; 74:1; 74:21; 75:1; 76:12; 78:16; 79:2; 79:14; 82:9; 91:2;</p> <p>TURN [8] 2:20; 30:10; 30:17; 30:18; 36:13; 75:14; 89:2; 89:6;</p> <p>TURNAROUND [2] 12:23; 14:9;</p> <p>TURNING [1] 75:25;</p> <p>TWEAK [5] 36:22; 36:25; 37:7; 37:8; 55:9;</p> <p>TWEAKED [2] 37:1; 55:6;</p> <p>TWEAKING [4] 24:2; 26:7; 33:22; 47:14;</p> <p>TWICE [1] 14:25;</p> <p>TWO [31] 6:7; 7:9; 15:24; 19:22; 24:8; 24:10; 37:19; 37:19; 43:6; 49:9; 70:22; 71:25; 76:21; 77:1; 87:8; 89:10; 90:11; 95:4; 95:4; 96:5; 98:18; 102:9; 102:18; 104:1; 105:3; 105:3; 105:5; 105:11; 105:24; 107:18; 107:22;</p> <p>TWO-SHOT [1] 89:16;</p> <p>TWO-WEEK [2] 12:23; 14:9;</p> <p>TYPE [15] 16:25; 17:2; 17:6; 22:12; 51:20; 61:4; 63:25; 65:14; 67:13; 68:21; 69:24; 69:24; 77:20; 98:24; 104:24;</p> <p>TYPES [4] 10:25; 61:22; 69:19; 70:10;</p> <p>=====</p> <p>- U -</p> <p>=====</p> <p>U.S [10] 2:10; 46:20; 57:9; 57:13; 58:19; 59:17; 60:4; 60:13; 61:17; 98:23;</p> <p>UC [1] 61:9;</p> <p>ULTIMATELY [2] 13:3; 91:11;</p> <p>UNABLE [1] 55:12;</p> <p>UNDER [6] 64:17; 66:8; 72:2; 81:19; 98:8; 98:9;</p> <p>UNDERSTAND [4] 26:12; 38:22; 39:12; 85:12;</p> <p>UNDERSTANDING [1] 105:11;</p> <p>UNDERSTOOD [1] 99:5;</p> <p>UNDISTURBED [1] 92:5;</p> <p>UNHAPPY [2] 25:15; 27:14;</p> <p>UNINTELLIGIBLE [7] 56:16; 61:25; 80:22; 85:13; 89:19; 91:8; 93:15;</p>	<p>UNIT [2] 23:1; 59:9;</p> <p>UNITED [1] 16:22;</p> <p>UNLESS [3] 19:20; 45:14; 90:21;</p> <p>UNTIL [6] 19:25; 45:11; 45:20; 71:1; 71:22; 81:1;</p> <p>UOKAY [1] 31:23;</p> <p>UP [53] 9:12; 9:16; 17:3; 18:7; 18:21; 20:4; 21:6; 25:8; 27:15; 39:15; 40:10; 43:10; 44:13; 46:5; 47:13; 48:5; 48:8; 50:8; 50:17; 50:22; 52:11; 52:15; 53:13; 53:16; 53:19; 54:2; 56:22; 58:15; 58:22; 60:17; 62:12; 62:18; 64:21; 65:1; 66:11; 69:5; 69:6; 69:13; 71:8; 71:10; 73:14; 74:24; 76:6; 76:10; 76:15; 80:20; 82:21; 85:19; 85:19; 88:25; 91:18; 92:3; 100:17;</p> <p>UPDATE [2] 2:24; 100:14;</p> <p>UPGRADIENT [1] 100:9;</p> <p>UPSET [2] 47:13; 50:2;</p> <p>UPSETS [2] 51:15; 51:24;</p> <p>URGENCY [1] 70:5;</p> <p>USA [1] 1:14;</p> <p>USC [1] 62:19;</p> <p>USE [21] 49:25; 51:21; 53:13; 56:2; 56:3; 57:14; 60:24; 61:10; 61:15; 61:16; 61:22; 63:1; 63:2; 68:6; 69:2; 72:14; 74:19; 81:19; 81:20; 81:22; 92:1;</p> <p>USED [6] 41:17; 56:18; 62:13; 64:14; 64:19; 91:25;</p> <p>USEFUL [2] 34:17; 39:24;</p> <p>USING [7] 7:5; 50:25; 59:9; 63:19; 68:24; 86:15; 89:13;</p> <p>USUALLY [4] 20:20; 31:20; 60:8; 100:2;</p> <p>=====</p> <p>- V -</p> <p>=====</p> <p>VALID [1] 84:6;</p> <p>VALLEYS [1] 52:8;</p> <p>VALUES [3] 10:10; 10:11; 10:25;</p> <p>VAPOR [20] 4:9; 17:20; 23:1; 31:4; 31:6; 31:11; 31:16; 31:17; 32:14; 32:15; 33:17; 34:7; 37:10; 38:10; 38:11; 38:23; 38:24; 44:19; 45:3; 46:12;</p> <p>VARIATIONS [1] 58:8;</p> <p>VARIETY [1] 92:25;</p> <p>VARIOUS [1] 43:17;</p> <p>VARY [1] 37:6;</p> <p>VENTURA [1] 84:25;</p> <p>VERBAL [1] 71:4;</p> <p>VERBALLY [1] 97:18;</p> <p>VERSION [3] 3:11; 9:6; 23:22;</p> <p>VERSUS [4] 86:17; 87:1; 90:11; 91:19;</p> <p>VIABILITY [1] 61:20;</p> <p>VIDEO [1] 93:15;</p> <p>VIOLATION [2] 98:8; 100:2;</p> <p>VIRGIN [1] 53:13;</p> <p>VOC [1] 49:5;</p> <p>VOCS [2] 48:16; 49:4;</p> <p>VOLUMES [1] 35:7;</p> <p>VON [2] 15:21; 103:4;</p> <p>=====</p> <p>- W -</p> <p>=====</p>
---	--	--	---

WAIT [3] 34:18; 36:1; 84:14;
WAITING [7] 64:9; 71:3; 73:9;
 73:11; 75:13; 80:20; 94:24;
WALK [1] 21:16;
WALKED [1] 6:7;
WALL [1] 63:17;
WANTED [15] 2:19; 2:23; 13:23;
 15:2; 32:12; 32:20; 45:4; 73:13;
 79:21; 79:21; 80:5; 81:9; 84:18;
 95:18; 98:13;
WASTE [1] 62:3;
WATER [11] 16:6; 51:18; 52:19;
 67:11; 74:20; 74:24; 80:11; 82:17;
 88:14; 96:2; 96:3;
WAVELENGTH [1] 7:25;
WAY [38] 7:4; 7:11; 11:11; 14:19;
 15:17; 15:25; 15:25; 17:14; 17:22;
 19:19; 20:2; 21:12; 21:16; 27:21;
 29:22; 30:20; 33:2; 33:20; 37:15;
 41:17; 45:13; 46:3; 46:7; 51:25;
 52:22; 56:20; 57:18; 65:6; 71:22;
 75:2; 81:14; 85:18; 85:19; 92:9;
 97:23; 103:6; 105:8; 108:1;
WAYS [2] 58:11; 58:12;
WEDNESDAY [1] 10:22;
WEDNESDAY-THURSDAY
 [2] 104:6; 106:14;
WEEK [12] 10:18; 13:6; 14:11;
 14:15; 14:18; 28:22; 60:6; 60:12;
 60:16; 102:17; 102:18; 102:19;
WEEKEND [4] 13:6; 13:18;
 14:15; 23:8;
WEEKENDS [2] 14:17; 60:9;
WEEKS [10] 29:3; 52:10; 54:3;
 60:8; 65:25; 72:1; 76:19; 95:4;
 103:24; 104:2;
WELL-DEFINED [1] 66:20;
WELLS [17] 24:6; 24:7; 28:1;
 35:22; 41:3; 41:5; 63:15; 66:14;
 66:15; 67:4; 70:13; 78:21; 78:23;
 83:2; 84:9; 84:10; 84:12;
WENT [4] 30:24; 70:23; 70:24;
 75:20;
WE[IRE] [1] 11:20;
WHATEVER [16] 3:14; 25:8;
 29:25; 34:21; 35:22; 35:23; 35:24;
 41:15; 66:23; 70:10; 71:5; 71:6;
 73:21; 77:19; 80:15; 80:19;
WHEELER [24] 4:9; 4:15; 23:11;
 25:2; 28:3; 30:7; 30:24; 31:9; 34:6;
 34:25; 36:25; 41:10; 41:17; 43:15;
 44:3; 57:10; 60:14; 61:7; 62:21;
 68:4; 68:13; 78:13; 98:21; 98:22;
WHEELER'S [5] 23:5; 23:10;
 27:23; 43:12; 87:6;
WHERE'S [1] 79:6;
WHEREAS [2] 11:5; 107:25;
WHETHER [15] 24:8; 27:25;
 30:8; 32:16; 39:13; 53:8; 69:2;
 69:25; 73:22; 77:18; 85:8; 89:25;
 103:2; 103:3; 106:20;
WHILE [3] 28:8; 28:9; 53:19;
WHO'S [3] 4:24; 5:13; 107:19;
WHOLE [10] 39:23; 39:23; 40:8;
 51:13; 63:9; 86:7; 86:21; 88:14;
 90:14; 105:22;
WHOMEVER [1] 15:7;
WILDLIFE [3] 84:25; 86:1; 90:25;

WILDLIFE'S [1] 91:14;
WILL [104] 3:12; 3:25; 4:2; 4:4;
 5:14; 5:16; 6:18; 7:10; 7:21; 7:22;
 8:2; 8:5; 8:6; 8:9; 8:11; 11:4; 12:7;
 12:8; 12:19; 12:21; 12:25; 13:14;
 13:20; 13:21; 15:3; 15:12; 15:13;
 15:16; 15:17; 18:17; 19:11; 23:7;
 24:5; 24:7; 24:8; 24:10; 24:10;
 25:1; 25:12; 26:21; 27:21; 31:3;
 32:8; 32:14; 36:7; 41:10; 42:5;
 43:15; 43:17; 45:7; 45:10; 53:11;
 55:18; 55:19; 55:23; 57:11; 59:3;
 60:7; 60:9; 63:3; 64:11; 64:19;
 65:13; 66:9; 66:19; 67:1; 67:5;
 67:5; 67:6; 67:10; 67:15; 69:4;
 69:6; 69:7; 69:8; 70:6; 70:6; 70:15;
 70:18; 70:18; 71:21; 72:10; 72:23;
 73:19; 73:20; 77:15; 81:3; 81:18;
 81:23; 82:6; 84:3; 84:4; 84:5; 85:8;
 87:11; 87:15; 90:12; 92:9; 95:11;
 95:20; 96:9; 98:23; 106:24; 107:22;
WILLING [2] 25:25; 58:14;
WIN [2] 91:10; 91:10;
WIN-WIN [2] 72:8; 75:1;
WITHOUT [2] 27:16; 69:1;
WON'T [3] 26:4; 60:10; 107:15;
WONDERING [1] 100:13;
WORD [1] 100:5;
WORK [32] 5:14; 6:11; 6:13;
 6:16; 6:19; 7:10; 7:11; 7:13; 14:17;
 14:18; 18:8; 20:1; 21:12; 23:5;
 23:10; 27:23; 34:10; 52:21; 59:13;
 63:9; 63:14; 67:18; 77:7; 78:14;
 78:18; 79:2; 82:23; 83:19; 83:21;
 96:19; 100:21; 108:2;
WORKED [5] 55:13; 80:16; 91:3;
 91:13; 93:21;
WORKING [26] 2:24; 4:5; 4:21;
 10:15; 17:14; 18:5; 19:1; 21:25;
 22:23; 23:18; 25:13; 29:10; 29:20;
 55:9; 55:19; 64:9; 72:2; 72:6;
 79:20; 81:4; 95:19; 99:6; 99:15;
 102:24; 103:1; 107:19;
WORKPLAN [20] 4:13; 23:9;
 24:4; 24:14; 24:15; 24:21; 25:1;
 28:22; 28:24; 29:6; 29:21; 30:7;
 30:14; 36:9; 38:17; 39:2; 42:11;
 42:12; 42:13; 43:24;
WORKS [4] 17:7; 27:22; 40:17;
 61:1;
WORKSHOP [1] 20:21;
WORRY [1] 87:3;
WORTHWHILE [1] 65:10;
WRONG [2] 29:18; 39:14;
 =====
 - Y -
 =====
YEAR [18] 20:9; 58:3; 76:6;
 76:25; 78:8; 78:10; 78:10; 79:9;
 80:22; 81:2; 83:21; 86:10; 87:1;
 94:13; 96:19; 96:20; 100:12; 100:12;
YEAR'S [1] 12:4;
YEARS [2] 77:1; 82:9;
YET [15] 5:11; 5:21; 5:24; 12:18;
 16:14; 22:16; 29:14; 40:4; 47:24;
 56:21; 69:3; 70:1; 70:16; 71:19;
 80:18;
YOURSELVES [1] 85:25;

YUP [1] 46:14;
 =====
 - Z -
 =====
ZERO [1] 49:4;
ZIP [1] 4:1;
ZONES [2] 82:8; 82:11;
ZUROMSKI [234] 1:16; 2:7; 2:7;
 2:21; 3:5; 4:19; 5:7; 5:11; 5:20;
 6:15; 6:25; 8:1; 8:13; 8:19; 9:2; 9:5;
 9:25; 12:13; 12:19; 13:7; 13:9;
 13:11; 13:20; 14:8; 16:3; 16:20;
 17:12; 17:25; 18:25; 19:14; 19:16;
 21:8; 22:4; 22:13; 22:15; 23:3;
 24:1; 24:18; 25:21; 26:3; 26:10;
 27:19; 28:14; 28:16; 28:24; 29:8;
 29:11; 31:23; 32:2; 32:5; 32:8;
 33:8; 33:14; 33:19; 33:23; 34:1;
 34:9; 34:13; 34:16; 34:17; 34:19;
 35:6; 35:9; 35:13; 35:15; 35:19;
 35:25; 36:11; 36:15; 36:18; 38:1;
 38:5; 38:8; 38:20; 39:1; 39:7;
 39:16; 39:20; 40:2; 40:16; 40:25;
 41:21; 42:4; 42:16; 42:19; 43:8;
 44:7; 44:15; 44:21; 45:2; 45:7;
 45:12; 45:16; 45:21; 46:2; 46:15;
 46:17; 46:23; 47:21; 48:2; 48:23;
 52:7; 52:9; 52:25; 53:3; 53:5; 53:7;
 53:11; 54:16; 54:21; 54:24; 56:6;
 56:14; 56:17; 56:23; 57:7; 57:20;
 58:5; 59:20; 59:23; 60:1; 60:4;
 60:23; 62:2; 62:5; 62:9; 62:16;
 62:19; 63:24; 64:8; 65:16; 66:14;
 66:16; 67:20; 67:24; 68:3; 68:7;
 68:10; 69:15; 72:21; 73:3; 74:18;
 75:9; 76:17; 76:22; 77:2; 78:5;
 78:10; 80:1; 80:13; 80:25; 82:1;
 82:6; 83:13; 83:16; 83:25; 84:3;
 85:15; 86:3; 86:21; 87:17; 87:20;
 88:2; 88:4; 88:13; 88:16; 88:19;
 88:23; 89:16; 89:19; 90:2; 90:7;
 90:16; 90:18; 92:11; 92:22; 93:3;
 93:19; 95:15; 95:21; 96:12; 96:22;
 97:1; 97:7; 97:16; 97:21; 98:2;
 98:5; 98:11; 98:17; 100:6; 100:18;
 100:24; 101:2; 101:5; 101:10;
 101:12; 101:14; 101:16; 101:21;
 101:24; 102:6; 102:15; 102:17;
 103:8; 103:13; 103:20; 103:25;
 104:3; 104:8; 104:11; 104:14;
 104:19; 104:22; 105:13; 105:15;
 105:18; 105:20; 105:25; 106:2;
 106:6; 106:9; 106:11; 106:13;
 106:19; 107:1; 107:6; 107:11;
 107:14; 107:18; 107:25; 108:8;
 108:10; 108:17;